

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-40			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-13-039		Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3		Title of Work Assignment/SF Site Name 2016 National TRI Conference					
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW Task C, Task D, Task E					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval				Period of Performance From 08/31/2016 To 07/31/2017					
Comments:									
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>									
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.									
SFO <input type="checkbox"/> (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period:		Cost/Fee:		LOE:					
09/11/2013 To 07/31/2017				0					
This Action:				216					
Total:				216					
Work Plan / Cost Estimate Approvals									
Contractor WP Dated:				Cost/Fee		LOE:			
Cumulative Approved:				Cost/Fee		LOE:			
Work Assignment Manager Name DNise Kaalund <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-0612 FAX Number:			
Project Officer Name Ahmar Siddiqui <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1044 FAX Number:			
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:			
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div> TAMMY ADAMS Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.08.31 08:50:15 -04'00' _____ (Signature) </div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545			

PERFORMANCE WORK STATEMENT

I. Title: 2016 National Training Conference on TRI and the Environmental Conditions in Communities Support

Contractor: Abt Associates

Contract No.: EP-C-13-039

II. Work Assignment Number: 3-40

III. Estimated Period of Performance: Date of Issuance through July 31, 2017

IV. Estimated Level of Effort: 216

V. Key EPA Personnel:

Work Assignment Contracting Officer's Representative (WACOR):

Dnise Kaalund
OCSPP/OPPT/TRIPD(2842T)
202/566-0612

Alternate Work Assignment Contracting Officer's Representative:

Margaret Conomos
OCSPP/OPPT/TRIPD (2842T)
202/566-0617

VI. Background and Purpose:

The 1972 Clean Water Act (CWA) directs the Environmental Protection Agency (EPA or Agency) to develop national technology-based regulations for categories of industries that discharge pollutants directly to surface waters (effluent guidelines) or that discharge pollutants indirectly through sewage treatment plants (pretreatment standards). The CWA also directs EPA to develop national technology-based regulations for new industrial facilities (new source performance standards).

Under Executive Orders 12866 and 13563, EPA is required to estimate the potential benefits and costs to society. As such, the purpose of this Work Assignment (WA) is to provide conference administrative and management services to include site selection, audio visual needs, pre-conference planning, and onsite meeting support for the Fall 2016 Toxics Release Inventory (TRI) National training conference. Other services may include, but not limited to, providing instructions on non-Federal Government expert travel arrangements/invitational travel (in accordance with Federal Travel Regulations); supporting the preparation and presentation of reports, including duplication and distribution of documents; providing editorial support, audiovisual support, audio taping and transcription of tapes; preparing summary reports; and if needed, providing a meeting facilitator. Additionally, the contractor may be required to ensure

that section 508 compliant materials are provided or if presentations or other video material is placed on a conference/meeting website that the video meets the requirements of section 508.

The work performed by the contractor shall include the above activities necessary to support the conduct of a successful conference. These activities are outlined in the tasks and may be expanded upon in the subsequently issued work plan. The scope of work is divided into four tasks as described in the following text.

VII. General Requirements of the Work Assignment and Schedule

Confidential Business Information: During the course of the work assignment, the contractor will not be accessing and evaluating CBI.

Budget Reporting: The contractor under this work assignment is required to report to the EPA WACOR and Contract level Contracting Officer's Representative (CL-COR) when 75 percent of the approved Work plan budget has been depleted.

Identification as Contracting Staff: To avoid the perception that contractor personnel are EPA employees, contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties and prior to the start of any meeting. Contractor personnel are prohibited from acting as the Agency's official representative. When speaking with the public, the contractor should refer all interpretations of policy to the EPA WACOR.

Limitation of Contractor Activities: The contractor shall submit drafts of all deliverables to the EPA WACOR for review prior to submission of the final product. These drafts shall clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources and data that support any conclusions and recommendations. The contractor shall incorporate all EPA WACOR comments into all final deliverables, unless otherwise agreed upon by the EPA WACOR. The contractor shall adhere to all applicable EPA management control procedures as implemented by the EPA Contracting Officer (CO), EPA CL-COR, and EPA WACOR.

Quick Response: Under this Performance Work Statement (PWS) the contractor may be required to provide information for use by EPA for quick responses and analyses of options, issues, and policy decisions. Quick responses are those which require completion in one to five working days.

Travel: EPA anticipates the need for non-local travel by contractor employees and/or subcontractors to support the scope of this work assignment.

Deliverable Formatting: All memos, draft comments, summaries and responses, and chapters are to be provided in electronic form using Word and/or Excel/Access, ArcView, or, in special cases another software program agreed to by EPA. Memos are to be written in a manner which will make them easy to turn into draft chapters for the Final Report. For deliverables that are in Word or pdf versions of Word documents, that are intended to be shared with management or the public, the contractor shall use decimal align in all tables containing columns of numbers of

varying digits, whether decimal places are reported or not. All final materials, e.g., memos, chapters, etc. are to be prepared only after receiving written technical direction from the EPA WACOR and will be formatted to be in compliance with the Section 508 Amendment to the Rehabilitation Act of 1973.

VIII. Performance Work Statement (Contract PWS Sections Task C, D and E)

The EPA WACOR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the EPA WACOR's comments.

Task 1 - Prepare Work Plan

The contractor shall prepare a work plan within 15 calendar days of receipt of the work assignment. The work plan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task, and a staffing plan. The EPA WACOR, the CL-COR and the CO will review the work plan. However, only the CO can approve/disapprove, suggest revisions, or change the work plan. Official revisions will be given to the contractor by the CO. The contractor shall prepare a revised work plan incorporating the CO's comments, if required.

A weekly update call with the EPA WACOR will be required for this work assignment to discuss progress on deliverables, costs, and other potential issues.

Deliverables and schedule under Task 1

1a. Work plan within 15 calendar days of receipt of work assignment.

1b. Weekly Update Call.

Task 2. Technical Assistance

2.a. Review and Analysis of Public Comments

The contractor shall review public comments on proposals, regulations, Notices of Data Availability (NODAs) and preliminary studies. The contractor shall provide technical support for EPA's activities to classify, analyze, and respond to comments. Based on an analysis of comments, the contractor shall provide information to the EPA to use in responding to comments on economic, financial, cost, benefit or environmental assessment issues. The contractor shall establish and maintain database systems in support of the public comment process in support of the TRI National Training Conference and its planning process.

2.b. Post Conference Public Comments

The contractor shall make record of metrics as necessary information for EPA to use in creating statistics, qualitative and quantitative measures and evaluations that are for learning outcomes, post-conference deliveries and future planning.

Such activities to observe include but are not limited to post-conference reports, training effectiveness, attendees, quantities, and their representing agencies; session and workshop evaluations; 508 compliant accommodations; recordings and their transcriptions, lessons learned and other related activities and follow up meetings that may be identified during the training conference. Such post-training conference reports and related materials provided to EPA are also used for programmatic consideration and outreach improvement for the TRI Program.

The EPA WACOR and the CL-COR will review the post-conference plan. However, only the EPA WACOR and the CL-COR can approve/disapprove, suggest revisions, or change the post-conference plan. The contractor shall prepare a revised post-conference plan incorporating the EPA WACOR or the CL-COR's comments, if required.

2.c. Outreach and Communications Plan

The contractor shall assist the conference planning leads with preparatory tasks for the 2016 training conference community outreach, marketing and communication. The conference planning team is normally comprised of EPA headquarters and regional staff, environmental justice staff, staff of other co-sponsors, and state TRI coordinators whom provide valuable input during the outreach and communication planning stages of the conference. However, the contractor shall only act on Technical Direction from the EPA WACOR. The team normally considers its audience with respect to the interest groups brought to them through the conference planning team and its stakeholders.

The contractor shall assist the conference planning leads with identifying potential communities and targeted audience; creating a timeline of milestones with target deadlines; compiling, organizing, and reviewing the submitted interest groups. The contractor shall assist the conference planning leads to meet the conference objectives and collaborate with the targeted audience through constructing a marketing and communications plan. Additionally, the contractor shall take notes during the conference planning team meetings and provide those notes via email to the conference planning team leads within three business days of the meeting. The contractor shall maintain a master file of all materials produced and provide those documents in addition to the original, editable files to the EPA WACOR.

2.d. Quick Turnaround

The contractor shall provide a post-conference plan that outlines, describes and includes the technical approach to improving the TRI Program including but not limited to relative resources, timeline and due dates for deliverables. The contractor shall provide the EPA WACOR with support and implementation for the elements and details of the post-training conference plan and its objectives. The contractor shall provide post-conference services and residuals including but not limited to recordings and their transcripts, evaluations, statistics in the form of metrics,

qualitative and quantitative results. In addition, the contractor shall provide conference reports, lessons learned modules and next steps from the training conference.

3. Outreach and Training Support

3.a. Public and Industry Outreach Activities

The contractor shall prepare materials to support the EPA's outreach and training activities to the public and industry. These materials may include reports, brochures, PowerPoint presentations, leaflets or posters and other media. All materials shall be submitted in draft form for EPA review and approval. In some cases, the contractor shall present standard lectures, workshops, and/or discuss case studies developed by the Agency. The contractor shall develop training courses to provide technical support for the Office of Environmental Information (OEI) in its work with EPA Regional Offices and States. The contractor shall also support the preparation for, and conduct of, public meetings and workshops. The contractor shall also provide expert speakers for conferences and symposia as identified in the work assignment.

3.b. Logistics Support

The contractor shall support conference planning and implementation activities as described in the following subtasks.

The contractor shall research possible themes, speakers, and other related topics identified during the planning process for the 2016 training conference. The contractor shall research themes for EPA and the conference co-sponsor the Dillard University Deep South Center for Environmental Justice (DSCEJ) to consider if they would like to focus the training and conference in a certain direction. However, DSCEJ has no authority to change or add anything this is already or not included in this performance work statement (PWS) or the approved work plan. The contractor shall only act on Technical Direction from the EPA WACOR.

Additionally, October 2016 will be the 30th Anniversary of the Emergency Planning and Community Right to Know Act (EPCRA). The contractor shall consider this pending anniversary and collaborating to reduce toxic releases in proposing at least three options for themes that the contractor believes would help attract conference and training interest in speakers, poster/exhibit presenters and conference participants. The contractor shall work with the EPA WACOR in identifying individuals representing key target audience stakeholder groups to encourage participation from their respective constituencies representing industry, states, Tribes, non-Governmental Organizations and academics.

The contractor shall provide at least five recommendations for focuses or topics (such as "pollution prevention") and then at least three captivating themes to accompany each of those recommended topics (such as the ones used in 2010 and 2012). Additionally, the contractor shall consider a theme that embraces the concept of "Collaborating to Reduce Toxic Releases."

Additionally, the contractor shall research speakers and attendees to market the training and conference including the call for abstracts to. Google alerts for "Toxics Release Inventory" and "Toxic Release Inventory" are sources of information to easily find out who is using TRI data in studies, what media outlets are using TRI in their stories and how, and finding other possible speakers or attendees. The contractor shall utilize this method throughout the option period along with other creative and traditional ways of researching and reaching possible trainers, conference speakers and attendees.

The contractor shall keep track of all names (including leaders and others involved in environmental hot topics identified during their theme research) and email addresses, web form links, social media identities, and other means of contacting people to market the training and conference to, update that list periodically, and send over to the EPA WACOR an updated list biweekly. The contractor shall perform other related research as identified by the EPA WACOR. The contractor shall maintain a master file of all materials produced and provide those documents in addition to the original, editable files to the EPA WACOR.

3.c. Training Support

The contractor shall coordinate notification and management of speakers, trainers, exhibits, posters, and moderators and other training conference management tasks identified during the planning process. The contractor shall develop and transmit guidelines, deadlines and other related communications for speakers, exhibits, posters and moderators whose requirements will be slightly different. The contractor shall confirm audio visual and other equipment needs from speakers, exhibits and posters, schedule needed conference calls or make calls necessary to obtain this information and coordinate everyone, and collect bios, presentations and abstracts. The contractor shall track this information and provide the conference lead with an update on a weekly and as needed basis. The contractor shall update the compilation of accepted abstracts book with any changes speakers' request. The contractor shall maintain a master file of all materials produced and provide those documents in addition to the original, editable files to the EPA WACOR. The contractor shall ensure that all materials are Section 508 compliant, if appropriate.

3.d. Outreach Support

The contractor shall support the EPA WACOR in developing and planning two training webinars that will be offered to conference registrants in advance of the conference to provide new registrants an enhanced understanding of the TRI program that is valuable for the rest of the conference. The contractor shall scope out proposal for these pre-conference training webinars and develop them based on input from the EPA WACOR. The contractor shall utilize training materials already developed by EPA where possible (e.g., Toxics Release Inventory Teach-in Trainers Guide, Introduction to the Toxics Release Inventory slides, Training on Basic TRI Reporting Concepts, Training on Advanced TRI Reporting Concepts, etc.) and identify a moderator or facilitator and individuals to present the trainings from in-house, EPA, DSCEJ, academia, or other organizations as appropriate. The contractor shall maintain a master file of all

materials produced and provide those documents in addition to the original, editable files to the EPA WACOR.

3.e. Additional Respective Support

The contractor shall provide technical and logistical support in the planning and execution of workshops, conferences, training sessions, symposia, and public meetings and to address various rulemaking issues and practical implementation concerns on related subjects. Activities shall include preparing course materials, coordinating facilities for training, and providing course instructors. Meetings shall vary in size, location, topics, and level of documentation. Materials prepared under this paragraph shall be submitted in draft for review and approval to the EPA CLCOR and/or the WACOR.

The contractor shall assist the conference planning leads with preparatory tasks for the 2016 training conference planning team meetings, communications plans, note taking during the team meetings, and with support for other tasks identified during the planning process. The conference planning team is normally comprised of EPA headquarters and regional staff, DSCEJ staff, staff of other co-sponsors, and state TRI coordinators whom provide valuable input during the planning stages of the conference. However, DSCEJ or other sponsors has no authority to change or add anything that is already or not included in the PWS or the approved work plan. The contractor shall only act on Technical Direction from the EPA WACOR. The team normally meets once a month starting approximately nine to 10 months before the conference. The planning team assists with a variety of conference related items such as providing opinions on the training conference theme, assisting with marketing the conference and call for abstracts, providing suggestions for topics on the call for abstracts, reviewing abstracts, commenting on the draft agenda, providing suggestions for exhibits, posters, sessions, and activities at the conference, and serving as moderators during the conference among others.

Additionally, the contractor shall provide on-site logistical support for the Conference including but not limited to workshop delivery and monitoring, and providing support of speaker, exhibit, presentations, poster, moderator, and master of ceremonies management. Also, coordinating the daily set up of and take down of equipment, tables and chairs, attendee materials, and signs; coordinating exhibits, orchestrating the equipment, technical support and execution of electronically sharing and/or recording conference proceedings; coordinating with on-site audio-visual staff to ensure that all equipment (e.g., screens, projectors, laptop computers, microphones, recordings, phones, sound board, etc.) functions properly; and other tasks that may be identified during the planning process.

The contractor shall assist the conference planning lead with identifying potential members; drafting conference planning team meeting agendas; creating a timeline of milestones with target deadlines; compiling, organizing, and reviewing the submitted abstracts; creating an abstract book of accepted abstracts for presentations and lists of exhibits and posters accepted; framing out possible agenda designs; and other related tasks identified during the planning process or stemming from the planning team meetings. Additionally, the contractor shall take notes during the conference planning team meetings and provide those notes via email to the conference

planning team lead within three business days of the meeting. The contractor shall maintain a master file of all materials produced and provide those documents in addition to the original, editable files to the EPA WACOR.

3.f. Public Conference Space Search

The contractor shall search for and acquire logistics space for the 2016 TRI National Training Conference in the Washington, DC area. The Request for Proposals shall meet the accommodations and logistics of the conference requirements from the WACOR. The contractor shall update the WACOR weekly.

Once the WACOR selects training conference space based on accommodations and logistics provided by the contractor, the contractor shall negotiate and secure the conference space on behalf of EPA. The contractor shall provide liaison support between the selected hotel and EPA prior to the conference.

3.g. US EPA Green Meeting Requirements

When soliciting quotes or offers for meeting and conference services on behalf of the EPA, the Contractor shall follow the contract EPA-H-31-106 (Which can be obtained from the WACOR), EPA-Sponsored Meetings, Workshops and/or Conferences.

4. Deliverables

All deliverables developed under this work assignment must be provided to the WACOR in electronic formats that are supported (i.e., PDF) and can be edited (i.e., Word, Excel) by the EPA. GIS data must be in ArcGIS format. The Contractor shall support the WACOR/CL-COR in conducting a “Final Deliverable Validation” to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to “electronic and information technology (EIT) deliverables”. The Contractor shall furnish certification, in writing, to the WA-COR/CL-COR that the Contractor has complied with EPAAR Clause 1552.211-79 “Compliance with EPA Policies for Information Resources Management” (Reference Contract Clause C-1), including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>.

The contractor shall provide an environment conducive to fulfilling the goals and objectives of the TRI National Training conference including but not limited to:

- Giving attendees valuable informational leads, cross-governmental and cross-organizational connections regarding the TRI Program;
- Providing sessions enhanced awareness, understanding, and use of TRI data among many stakeholder groups;
- Fostering ideas for collaborations that they may not have otherwise considered;

- Offering opportunities for external parties to highlight the work they have done through partnerships with EPA, including powerful presentations by community organizations and innovative work from student groups;
- Arranging a forum for coordinated progress on a wide range of issues among the States, Tribes and EPA that includes TRI regulatory updates, the TRI National Analysis, the TRI interpretive guidance workgroup, data quality, and enforcement; and
- Presenting an exhibition that provides hands-on personalized training about many data access and analytical tools.

DELIVERABLE SCHEDULE

TASKS	ASSIGNMENTS	DUE DATE
1	Prepare work plan	within 15 calendar days of receipt of WA
2	Outreach and communications plans	To Be Determined (TBD)
	Recordings and transcripts	15 calendar days post conference
	Evaluations	15 calendar days post conference
	Statistics, quantitative and qualitative measures	30 calendar days post conference
	Conference report	30 calendar days post conference
	Lessons learned and next steps	30 calendar days post conference
3	Conference and training space	seven calendar days of approved work plan
	Preparation, planning and timeline	TBD
	Research	TBD
	Agenda, Marketing and Materials	TBD
	Speaker, Exhibits, Poster, Moderators	TBD
	Workshop development	TBD
	eConference sharing	TBD
	Conference support	TBD
	Abstract management	TBD
	Registration flyer	TBD
	Post-conference evaluation, Abstracts	TBD
	Welcome letter, speaker, exhibit, poster and moderator notification	TBD
	Master of ceremonies and break slides	TBD
	Signs, Exhibit list, name tags	TBD
	Social media messages for conference	TBD
	Bio, presentation, audio visual needs, and submitted abstract analyses	TBD

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Contract Number EP-C-13-039			Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3			Title of Work Assignment/SF Site Name 2016 TRI National Training Con				
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW 2, 3, 4						
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval						Period of Performance From 08/31/2016 To 07/31/2017				
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Contract Period:		Cost/Fee: \$0.00		LOE: 0						
09/11/2013 To 07/31/2017										
This Action:		\$98,544.00		512						
Total:		\$98,544.00		512						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated: 09/16/2016		Cost/Fee \$98,544.00		LOE: 512						
Cumulative Approved:		Cost/Fee \$98,544.00		LOE: 512						
Work Assignment Manager Name DNise Kaalund <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code:				
						Phone Number: 202-566-0612				
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Project Officer Name Ahmar Siddiqui <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code:				
						Phone Number: 202-566-1044				
						FAX Number:				
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code:				
						Phone Number:				
						FAX Number:				
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div> TAMMY ADAMS Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.10.12 10:07:55 -04'00' </div> <div>_____ (Signature)</div> </div>						Branch/Mail Code:				
						Phone Number: 513-487-2030				
						FAX Number: 513-487-2545				

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-43			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-13-039		Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3		Title of Work Assignment/SF Site Name NE Recreational Surveys					
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW A.2.2, paragraph 2; A.6; C.2					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval				Period of Performance From 08/01/2016 To 07/31/2017					
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Authorized Work Assignment Ceiling									
Contract Period:		Cost/Fee:		LOE:					
09/11/2013 To 07/31/2017				0					
This Action:				728					
Total:				728					
Work Plan / Cost Estimate Approvals									
Contractor WP Dated:				Cost/Fee		LOE:			
Cumulative Approved:				Cost/Fee		LOE:			
Work Assignment Manager Name Marty Chintala <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 401-782-3155 FAX Number:			
Project Officer Name Ahmar Siddiqui <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1044 FAX Number:			
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Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div> TAMMY ADAMS Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.08.01.09:20:43 -04'00' _____ (Signature) (Date) </div> <div> Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545 </div> </div>									

WORK ASSIGNMENT

Title: Instrument Development for Coastal Recreation Revealed Preference Surveys

Contractor: Abt Associates

Contract No.: EP-C-13-039

Work Assignment Number: 3-43

Estimated Period of Performance: August 1, 2016 through July 31, 2017

Estimated Level of Effort: 728

Key EPA Personnel:

Work Assignment COR (WACOR):

Marty Chintala
NHEERL/ORD/AED/WEB
401-782-3155
401-782-3030 (fax)

Background and Purpose:

The 1972 Clean Water Act (CWA) directs the Environmental Protection Agency (EPA) to develop national technology-based regulations for categories of industries that discharge pollutants directly to surface waters (effluent guidelines) or that discharge pollutants indirectly through sewage treatment plants (pretreatment standards). The CWA also directs EPA to develop national technology-based regulations for new industrial facilities (new source performance standards).

Under Executive Orders 12866 and 13563, EPA is required to estimate the potential benefits and costs to society. As such, the purpose of this Work Assignment (WA) is to support EPA's efforts to improve its ability to monetize the benefits associated with these regulatory actions. The WA will include support for developing and implementing two related revealed preference surveys to estimate participation in and values for water recreation as those values relate to water quality. This will include arranging and facilitating focus groups, assistance with survey design and statistical sampling design, survey pre-testing, and survey implementation. The contractor shall assist staff in EPA's Office of Research and Development (ORD) in the development and implementation of the revealed preference survey instruments.

Under this work assignment the contractor shall conduct all analyses requiring the collection and manipulation of data and models in accordance with the EPA approved quality assurance (QA) project plan that will be based on Task 2 QAPP language. The QA project plan shall describe the procedures for assuring the quality of the primary and secondary environmental and economic data used for this work assignment.

The focus of this work is on coastal recreation participation and site choice, and effects of water quality on participation in and values for water recreation, using revealed preference approaches. This will include defining the market extent, or the affected people and activities. While stated preference methods can capture a larger set of values, including both use and non-use values, they may suffer from various types of bias, and often respondents lack context and experience with the good or ecosystem service they are expected to value. Revealed preference methods, on the other hand, require data on choices and choice sets and assumptions of a choice framework, often based on random utility models (RUM) of discrete choices.

Developing a sound revealed preference survey instrument requires at least two phases: focus groups and survey pre-testing. EPA requires assistance to set up a series of focus groups that EPA researchers will participate in and use to develop, evaluate, and refine two revealed preference surveys. One of these instruments will focus on regional (New England) water-based recreation participation and site choices including water quality in the factors affecting Willingness to Pay (WTP) as well as site choice (referred to below as the mail or internet survey). The data collected will inform a regional demand model for water-based recreation, including marginal value (WTP estimates) as well as aggregate participation modeling for site alternatives. The other survey will be a Barnstable County, MA (Cape Cod) specific intercept survey (referred to below as the intercept survey). The results of the intercept survey will be used to test the viability of the regional demand model in addressing site-specific total maximum daily loads (TMDL) benefits/costs, such as those written for Cape Cod coastal estuaries.

The focus of this work will be values for and participation in water-contact recreation. It will include estimates of site choice, total participation, and values per trip; and how these change with changes in water quality. It may include various types of coastal recreation, including beach use, swimming, shellfishing, small boating, and other activities. As part of the initial scoping and survey development (Tasks 4 and 5), EPA will work with the contractor to determine which activities to include in the survey. The geographic focus of the study is New England, with an added emphasis on Barnstable, County, MA (Cape Cod). As part of the initial scoping and survey development (Tasks 4 and 5), EPA will work with the contractor to determine the specific range of geographic locations to include.

VII. General Requirements of the Work Assignment and Schedule

Confidential Business Information: During the course of the work assignment, the contractor will not be accessing and evaluating CBI.

Budget Reporting: The contractor under this work assignment is required to report to the EPA WACOR and Contract-Level Contracting Officer Representative (CL-COR) when 75 percent of the total work assignment funding amount has been depleted. The contractor must also report to the EPA WACOR when 75 percent of the approved Work plan budget has been depleted.

Identification as Contracting Staff: To avoid the perception that contractor personnel are EPA employees, contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties and prior to the start of any meeting. Contractor personnel are prohibited from acting as the Agency's official representative. When speaking with the public, the contractor should refer all interpretations of policy to the EPA WACOR.

Limitation of Contractor Activities: The contractor shall submit drafts of all deliverables to the EPA WACOR for review prior to submission of the final product. These drafts will clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources and data that support any conclusions and recommendations. The contractor shall incorporate all EPA WACOR comments into all final deliverables, unless otherwise agreed upon by the EPA WACOR. The contractor shall adhere to all applicable EPA management control procedures as implemented by the EPA Contracting Officer (CO), EPA CL-COR, and EPA WACOR.

Quick Response: Under this Performance Work Statement the contractor shall not be required to provide information for use by EPA for quick responses and analyses of options, issues, and policy decisions. Quick responses are those which require completion in one to five working days.

Travel:

The contractor may be required to travel under this work assignment. Travel may be to participate with EPA in focus groups or other on-site data collection, and to meet with EPA to discuss methodology and other important issues associated with the project. A request for approval for any travel directly chargeable to this work assignment must be submitted and approved by the CL-COR before travel begins.

Deliverable Formatting: All memos, draft comments, summaries and responses, and chapters are to be provided in electronic form using Word and/or Excel/Access, GIS shapefiles, or, in special cases another software program agreed to by EPA. Memos are to be written in a manner which will make them easy to turn into draft chapters for the Final Report. For deliverables that are in Word or pdf versions of Word documents, that are intended to be shared with management or the public, the contractor shall use decimal align in all tables containing columns of numbers of varying digits, whether decimal places are reported or not. All final materials, e.g., memos, chapters, etc. are to be prepared only after receiving written technical direction from the EPA WACOR and will be formatted to be in compliance with the Section 508 Amendment to the Rehabilitation Act of 1973.

VIII. Performance Work Statement

The EPA WACOR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the EPA WACOR's comments.

Task 1 - Prepare Work Plan

The contractor shall prepare a work plan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The work plan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, and include a detailed cost estimate by task and a staffing plan. The WACOR, CL-COR, and the CO will review the work plan. However, only the CO can approve/disapprove, suggest revisions, or change the work plan. Official revisions will be given to the contractor by the CO. The contractor shall prepare a revised work plan incorporating the Contracting Officer's comments, if required.

Deliverables and schedule under Task 1

1. Work plan within 15 calendar days of receipt of work assignment.

Task 2 - Quality Assurance

2.1 Background

Quality Assurance Project Plans are required under the Agency's Quality Assurance Policy CIO-2105, formerly EPA Order 5360.1A2 and implementing guidance CIO-2105-P-01-0. All projects that involve the generation, collection, analysis and use of environmental data must have an approved Quality Assurance Project Plan (QAPP) in place prior to the commencement of the work.

Note that QAPPs are required for the development or revision of models and software that support the generation, collection, evaluation, analysis, or use of data. (A model is set of equations and assumptions used to predict unknown data.) When existing models are used as a tool to generate or evaluate data, the project QAPP must describe the model and explain how it will be used and how its output will be evaluated to ensure the modeling effort meets the overall quality objectives for the project. Development or revision of new models also must be supported by a QAPP that describes the objectives for the model, the quality criteria that will be applied to the model, and the procedures for evaluating whether the model meets those criteria.

2.2 QA Project Plan Requirements

The Contractor has previously prepared a contract-wide Programmatic QAPP (PQAPP) for Contract EP-C-13-039. This PQAPP describes, in a single document, information that is not site or time-specific, but applies throughout the program (i.e., the duration of the contract). When tasked with preparing the PQAPP, the Contractor was informed that the PQAPP may need to be supplemented with project-specific details to support individual work assignments that involve the collection, generation, evaluation, analysis, or use of environmental data.

The activities in this work assignment involve gathering, evaluating, analyzing, and otherwise using existing economic data (also known as "secondary" use of data) and collecting primary data using revealed preference surveys and focus groups. For any activities not covered under the existing PQAPP, the Contractor shall prepare a supplemental QAPP (SQAPP).

In support of this work assignment, the Contractor shall ensure that the work plan provides enough detail to clearly describe:

- The type of data to be gathered or used under this work assignment to support the project objectives as well as a rationale for when those sources are appropriate and what data available in each will support the project
- The quality objectives needed to ensure the data will support the project objectives, and
- The Quality Assurance/Quality Control (QA/QC) activities to be performed to ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed.

2.3 Additional QA Documentation Required

The EPA Quality Manual for Environmental Programs (CIO 2105-P-01-0, May 2000) requires published Agency reports containing environmental data to be accompanied by a readily identifiable section or appendix that discusses the quality of the data and any limitations on the use of the data with respect to their originally intended application. The EPA Quality Manual further requires Agency reports to be reviewed by the QA manager (or other authorized official) before publication to ensure that an adequate discussion of QA and QC activities is included. The purpose of the review is to ensure the reports provide enough information to enable a knowledgeable reader to determine if the technical and quality goals were met for the intended use of the data. Reports should include applicable statements regarding the use of any environmental data presented as a caution about possible misuse of the data for other purposes. For example, a Technical Support Document or Study Report must include a clear discussion of the quality management strategies (including the project goals and objectives, quality objectives and criteria, and QA/QC practices) that were employed to control and document the quality of data generated and used. These documents should also discuss any deviations from procedures documented in the EPA-approved QAPP(s) supporting the project, the reasons for those deviations, any impact of those deviations had on data quality, and steps taken to mitigate data quality issues.

In support of this Agency requirement, all major deliverables (e.g., Technical Support Documents, Study Reports, Analytical Methods) produced by the Contractor under this work assignment must include a discussion of the QA/QC activities that were performed to support the deliverable, and this discussion must provide a sufficient level of detail to allow the QA Coordinator (or designee) to determine if the QA/QC strategies implemented for the project sufficiently support the intended use of the data. Upon receipt, the EPA WACOR will review each applicable report and certify whether the Contractor has adhered to the QA requirements documented in the Contractor's PQAPP and SQAPP.

The Contractor also shall provide EPA with monthly reports of QA activities performed during implementation of this work assignment. These monthly QA reports shall identify QA activities performed to support implementation of this work assignment, problems encountered, deviations from the QAPP, and corrective actions taken. If desired, the Contractor may include this as a part of the contract-required monthly financial/technical progress report.

2.4 Data Quality Act/Information Quality Guidelines Requirements

The Data Quality Act (also known as the Information Quality Act) requires EPA to ensure that influential information disseminated by the Agency is sufficiently transparent in terms of data and

methods of analysis that the information is capable of being substantially reproduced. To support compliance with these data transparency/ data reproducibility requirements, EPA plans to include QAPPs as part of any rulemaking record documentation to be made available to the public. (This includes PQAPPs and SQAPPs.) The Contractor may claim information in QAPPs as confidential; if the Contractor chooses to do so, the Contractor shall submit a sanitized (i.e., public) version and an unsanitized (i.e., confidential) version at the time the QAPP is submitted for approval by EPA. The sanitized version shall be included in the public docket for the applicable rulemaking (or other docket record), and the unsanitized version shall be included in a non-public (i.e., confidential) portion of the docket (or record).

Information contained in the approved QAPP shall be transparent and reproducible and meet the requirements of the Data Quality Act for influential information. EPA's *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency* (EPA/260R-02-008, October 2002), referred to as "EPA's Information Quality Guidelines," describe EPA procedures for meeting Data Quality Act requirements. Section 6.3 of EPA's Information Quality Guidelines indicate that "especially rigorous robustness checks" should be applied in circumstances where quality-related information cannot be disclosed due to confidentiality issues. Where applicable, the Contractor should indicate which results were obtained using the tools (Standard Operating Procedures (SOPs), checklists, and guidelines) that the Contractor designates as confidential so that the EPA WACOR can easily identify the areas that shall require rigorous robustness checks and document that those checks have been performed. At the discretion of the EPA WACOR, the contractors may be requested to prepare pre-dissemination review checklist as described in Appendix B of the Office of Water Quality Management Plan, April, 2015. If this is required, the EPA WACOR shall notify the Contractor through written technical direction.

Acceptable Quality Assurance Documentation must be submitted to the EPA CL-COR within 60 days of the acceptance of this agreement. No work involving direct measurements or data generation, environmental modeling, compilation of data from literature or electronic media, and data supporting the design, construction, and operation of environmental technology shall be initiated under this project until the EPA CL-COR, in concert with the EPA Quality Assurance Manager, has approved the quality assurance documentation (see CFR 30.54 or 31.45 as appropriate).

Deliverables and schedule under Task 2

2a. SQAPP, if necessary, within 60 calendar days of receipt of work assignment.

2b. Monthly reports of QA work performed (may be included in Contractor's monthly progress report), monthly throughout the WA period of performance.

Task 3 - Prepare Standardized Naming Convention and Version Control Memorandum

The contractor shall prepare and submit a memorandum that proposes a standardized naming convention and version control (SNCVC) for all deliverables associated with the WA. This

system will ensure that deliverables are clearly named and dated and that the sequence of versions of a document is clear. The EPA WACOR will review the memorandum and then provide the contractor with written notification of approval or edits that need to be made. The contractor shall prepare a revised SNCVC memorandum incorporating the EPA WACOR's comments, if required. After receiving notification of approval the contractor will use this standardized convention for all deliverables associated with the work assignment(s). The EPA WACOR may request the contractor through written technical direction to amend the SNCVC memorandum at any point during the WA.

Deliverables and schedule under Task 3

3a. SNCVC memorandum within 7 calendar days if required.

3b. If required, revised memorandum within 3 calendar days of receipt of comments from the EPA WACOR, at technical direction of EPA WACOR.

Task 4 – Arrange for Focus Groups for Survey Development and Qualitative Data Collection (A.2.2 Benefit Analysis; A.6 Methodology Development and Technical Review)

The contractor shall arrange for the conduct of up to 8 focus groups to develop revealed preference valuation approaches for estimating the benefits and costs of changes in water quality on water-based recreation; to develop survey questions related to sense of place; and to collect qualitative social science data. The focus groups will be conducted in and near Barnstable County, MA. The WACOR will provide technical direction as to the expected schedule and locations, and for final locations.

The contractor shall recruit focus group participants based on criteria developed by EPA and provided by the WACOR. The contractor shall arrange for each focus group to be conducted in an appropriate facility, such as a hotel conference room or other public space. Each focus group shall be audio-recorded in digital format and delivered to EPA on digital video disk (DVD) or as a digital download. The contractor shall provide transcriptions for the focus groups.

The contractor shall recruit 10-12 individuals for each focus group, with the goal of 6-10 participants in each group. The contractor shall arrange for and distribute appropriate incentive payments for attendees. Each focus group shall last approximately 2 hours and be conducted at a convenient time and in a convenient location. The EPA will provide the moderator services for the focus groups.

The WACOR in conjunction with the appropriate personnel in ORD will secure the Information Collection Request (ICR) approval for the focus groups under an existing agreement with the Office of Management and Budget (OMB) for expedited review.

Deliverables and schedule under Task 4

- 4a. Establish locations and initial dates for focus groups within 1 week of receiving technical direction from WACOR.**
- 4b. Recruit participants for first focus group within 1 week of receiving final location information and criteria from EPA and for subsequent focus groups within 1 week of receiving criteria for those groups.**
- 4c. Arrange audio-recordings of each group within 1 week of receiving final location information from EPA and for subsequent focus groups within 1 week of receiving criteria for those groups.**
- 4d. Submit audio-recordings and transcripts to WACOR within 1 week of completing each set of focus groups.**

Task 5 – Identify and Contract with an Expert to Assist with Survey Development (A.6 Methodology Development and Technical Review)

The contractor will identify and contract with a recognized expert in revealed preference surveys to support study development.

Deliverables and schedule under Task 5

- 5a. Identify and contract with a recognized revealed preference survey expert, within 2 weeks of receiving technical direction from WACOR.**
- 5b. Arrange for consultations with expert, and deliver a memo by the expert regarding survey design, within 6 weeks of receiving technical direction from WACOR.**

Task 6 – Assistance With Survey Design and Layout, and Programming of Internet Survey(s) (A.2.2 Benefit Analysis; A.6 Methodology Development and Technical Review)

ORD plans to conduct a mail or internet survey (or mixed-method approach using mail recruitment for an internet survey) of people who participate in coastal recreation within 100 miles of the coast in New Hampshire (NH), Massachusetts (MA), and Rhode Island (RI), and an intercept survey of people at recreational sites for one or two watersheds in Barnstable County, MA. The contractor shall assist with survey design and operationalizing the survey. Specific tasks required to complete this task will depend on the final choice for the format of the survey.

If a mail survey is selected, the contractor shall assist with formatting and producing the files needed to print survey booklets. ORD will have the booklets printed using U.S. Government printing services. If an internet survey is selected, the contractor shall either assist with contracting with an online survey company for necessary programming, or program the needed online functionality for data collection. This functionality should be created so that it can be

reused, with modifications, in future applications in other regions.

For the intercept survey, the contractor shall assist with formatting and producing files needed to implement the survey – either using paper surveys or data entry on tablet computers; or using an on-site recruitment to an internet survey. If online recruitment to an internet survey is used, the contractor shall either assist with contracting with an online survey company for necessary programming, or program the needed online functionality for data collection.

Deliverables and schedule under Task 6

6a. Assist with developing and designing survey instruments and formatting of paper surveys within 4 weeks of receiving technical direction from WACOR.

6b. Create or assist with contracting for online survey functionality, if an internet survey is selected. Provide tool for future applications within 8 weeks of receiving technical direction from WACOR.

Task 7 – Statistical Design and Assistance Preparing ICR for OMB Approval for Mail or Internet Survey and Intercept Survey (A.2.2 Benefit Analysis; A.6 Methodology Development and Technical Review; C.2 Review and Analysis of Public Comments)

The contractor shall prepare the necessary documents and package to obtain OMB approval to conduct the surveys. Any questions, changes and clarifications from OMB will be addressed and the packet re-filed in consultation with ORD staff. As part of the process, the contractor shall assist in conducting a pre-test survey, if needed for approval.

Deliverables and schedule under Task 7

7a. Prepare OMB package for survey approval, and address needed follow-up questions from OMB in consultation with ORD within 8 weeks of receiving technical direction from WACOR.

Task 8 – Conduct Mail/Internet or Mixed-Method Survey (A.2.2 Benefit Analysis; A.6 Methodology Development and Technical Review; C.2 Review and Analysis of Public Comments)

Once approval for survey(s) is obtained from OMB, the contractor shall implement the pretest and survey for the mail, internet, or mixed-method survey as designed. This entails mailings/emailings, follow-up mailings/emailings, providing token cash incentives to respondents, and other steps needed to follow the Dillman survey implementation recommendations.

Deliverables and schedule under Task 8

8a. Implement pre-test survey instrument per OMB process, within 2 weeks of OMB approval.

8b. Implement mail/internet (or mixed-method) survey, beginning within 2 weeks of OMB approval of final survey instrument, to be completed within the timing specified by the final sampling strategy, depending on whether a one-time collection or survey waves is selected.

Task 9 – Support for compiling water quality metrics and site attributes and linking them to survey results (A.2.2 Benefit Analysis; A.6 Methodology Development and Technical Review)

The contractor shall provide assistance in compiling water quality metrics and other site attributes, and linking these metrics to survey data. This may include compilation of appropriate water quality measures and other attribute measures, in coordination with ORD and other EPA staff; and Geographic Information System (GIS) support for linking these measures to appropriate geographic locations where survey respondents participate in water recreation.

Deliverables and schedule under Task 9

9a. Compilation of appropriate water quality and other measures within 4 weeks of receiving technical direction from WACOR.

9b. GIS support to link water quality and other measures to recreational locations specified by survey respondents within 4 weeks of receiving technical direction from WACOR.

Schedule for Deliverables:

Task	Deliverable	Form and Quantity	Schedule
Task 1	1a) Work plan	Electronic Document	Within 15 calendar days of work assignment receipt
Task 2	2a) Supplementary Quality Assurance Project Plan (if necessary)	Electronic document	Within 60 calendar days of receipt of work assignment.

	2b) Monthly progress reports	Electronic document	Monthly
Task 3	3a) SNCVC memorandum	Electronic document	Within 7 calendar days if required.
Task 4	4a) Establish location and dates for up to 8 focus groups	Email	Within 1 week of receiving technical direction from WACOR
	4b) Recruit focus group participants	N/A	First focus group: within 1 week of final location and receiving selection criteria. Remaining focus groups: Within 1 week of receiving additional selection criteria.
	4c) Arrange audio recordings of focus groups	NA	First focus group: within 1 week of final location and receiving selection criteria. Remaining focus groups: Within 1 week of receiving additional selection criteria.
	4d) Submit audio recordings and transcripts of focus groups	DVD or digital download	Within 1 week of completing each set of focus groups
Task 5	5a) Identify and contract with a recognized revealed preference survey expert.	NA	Within 2 weeks of receiving technical direction from WACOR.

	5b. Arrange for consultations with expert, and deliver a memo by the expert regarding survey design.	Electronic document	Within 6 weeks of receiving technical direction from WACOR.
Task 6	5a) Assist with developing and designing survey instruments and formatting of paper surveys	Meetings, emails, electronic documents	Within 4 weeks of receiving technical direction from WACOR
	5b) Create or assist with contracting for online survey functionality. Provide tool for future applications.	Website and code	Within 8 weeks of receiving technical direction from WACOR
Task 7	7a) Prepare OMB package for survey approval, and address any OMB follow-up questions.	Electronic Documents	Within 8 weeks of receiving technical direction from WACOR
Task 8	8a) Implement pre-test survey instrument per OMB process if needed.	NA	Within 2 weeks of OMB approval
	8b) I mail/internet (or mixed-method) survey	NA	Within 2 weeks of OMB approval of final survey instrument
Task 9	9a) Compilation of appropriate water quality and other measures.	Electronic documents and files	Within 4 weeks of receiving technical direction from WACOR.
	9b) GIS support to link water quality and other measures to recreational locations specified by survey respondents.	Electronic files	Within 4 weeks of receiving technical direction from WACOR.

Task 7	7a) Assist with intercept survey logistics	NA	Within 2 weeks of receiving technical direction from WACOR
	5b) Data entry and cleaning for intercept survey	Electronic Database	Within 4 weeks of survey completion
Task 8	8a) Compile appropriate water quality measures	Electronic database or Excel file	Within 4 weeks of receiving technical direction from WACOR
	8b) GIS support to link water quality measures to recreational locations	GIS files	Within 4 weeks of receiving technical direction from WACOR

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-43	
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:	
Contract Number EP-C-13-039		Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3		Title of Work Assignment/SF Site Name Coastal Recreation Surveys			
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW A.2.2, paragraph 2; A.6; C.2			
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval				Period of Performance From 08/01/2016 To 07/31/2017			
Comments:							
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>							
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.							
SFO <input type="checkbox"/> (Max 2)							
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents) Site/Project (Max 8) Cost Org/Code
1							
2							
3							
4							
5							
Authorized Work Assignment Ceiling							
Contract Period:		Cost/Fee: \$0.00		LOE: 0			
09/11/2013 To 07/31/2017							
This Action:		\$155,805.00		1,069			
Total:		\$155,805.00		1,069			
Work Plan / Cost Estimate Approvals							
Contractor WP Dated: 08/26/2016		Cost/Fee \$155,805.00		LOE: 1,069			
Cumulative Approved:		Cost/Fee \$155,805.00		LOE: 1,069			
Work Assignment Manager Name Marty Chintala <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 401-782-3155 FAX Number:	
Project Officer Name Ahmar Siddiqui <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1044 FAX Number:	
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div> TAMMY ADAMS Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.09.12 11:14:24 -0400 _____ (Signature) </div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545	

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-45			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-13-039			Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3			Title of Work Assignment/SF Site Name Petroleum Refining Study			
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW A.1 and A.2					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 08/01/2016 To 07/31/2017			
Comments: Performance on this Work Assignment shall not begin until August 1, 2016.									
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>									
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.									
SFO <input type="checkbox"/> (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period:		Cost/Fee:		LOE:					
09/11/2013 To 07/31/2017				0					
This Action:				900					
Total:				900					
Work Plan / Cost Estimate Approvals									
Contractor WP Dated:				Cost/Fee		LOE:			
Cumulative Approved:				Cost/Fee		LOE:			
Work Assignment Manager Name James Covington						Branch/Mail Code:			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Phone Number: 202-566-1034			
						FAX Number:			
Project Officer Name Ahmar Siddiqui						Branch/Mail Code:			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Phone Number: 202-566-1044			
						FAX Number:			
Other Agency Official Name						Branch/Mail Code:			
<div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Phone Number:			
						FAX Number:			
Contracting Official Name Tammy Adams						Branch/Mail Code:			
<div style="display: flex; justify-content: space-between;"> <div> TAMMY ADAMS <small>Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.07.29 08:54:36 -04'00'</small> </div> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Phone Number: 513-487-2030			
						FAX Number: 513-487-2545			

WORK ASSIGNMENT

I. Title: Economic Analysis for Petroleum Refining Study

Contractor: Abt Associates

Contract No.: EP-C-13-039

II. Work Assignment Number: 3-45

III. Estimated Period of Performance: August 1, 2016 through July 31, 2017

IV. Estimated Level of Effort: 900

V. Key EPA Personnel:

Work Assignment Contracting Officers Representative (WACOR):

James C. Covington, III

OST/EAD (4303T)

202/566-1034

202/566-1053 (fax)

VI. Background and Purpose:

The 1972 Clean Water Act (CWA) directs the Environmental Protection Agency (EPA) to develop national technology-based regulations for categories of industries that discharge pollutants directly to surface waters (effluent guidelines) or that discharge pollutants indirectly through sewage treatment plants (pretreatment standards). The CWA also directs EPA to develop national technology-based regulations for new industrial facilities (new source performance standards).

Under Executive Orders 12866 and 13563, EPA is required to estimate the potential benefits and costs to society. As such, the purpose of this Work Assignment (WA) is to review discharge information from petroleum refineries to determine whether the current effluent limitations guidelines and standards (ELGs) for these operations should be revised, examine the economic health and any community impacts.

Under this work assignment the contractor shall conduct all analyses requiring the collection and manipulation of data and models in accordance with the EPA approved quality assurance (QA) project plan was developed for this work. The QA project plan shall describe the procedures for assuring the quality of the primary and secondary economic data used for this work assignment.

VII. General Requirements of the Work Assignment and Schedule

Confidential Business Information: During the course of the work assignment, the contractor will be accessing and evaluating CBI. As such, the contractor shall adhere to EPA's CBI policy and other procedures as described in the contract clauses (Clauses H.15-H19 and H.21). The

contractor must maintain CBI security clearance to use CBI information. The contractor will not disclose any CBI to anyone other than EPA without prior written approval from the EPA WACOR. The contractor shall, at all times, adhere to Confidential Business Information (CBI) procedures when handling industry information. The contractor will manage all reports, documents, and other materials and all draft documents developed under this work assignment in accordance with the procedures set forth in our “Office of Science and Technology Confidential Business Information Application Security Plan” (August 2011) or its successor approved plans.

Budget Reporting: The contractor under this work assignment is required to report to the EPA WACOR and Contract Level Contracting Officer Representative (CL-COR) when 75 percent of the total work assignment funding amount has been depleted. The contractor must also report to the EPA WACOR when 75 percent of the approved Workplan budget has been depleted.

Identification as Contracting Staff: To avoid the perception that contractor personnel are EPA employees, contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties and prior to the start of any meeting. Contractor personnel are prohibited from acting as the Agency’s official representative. When speaking with the public, the contractor should refer all interpretations of policy to the EPA WACOR.

Limitation of Contractor Activities: The contractor will submit drafts of all deliverables to the EPA WACOR for review prior to submission of the final product. These drafts will clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources and data that support any conclusions and recommendations. The contractor will incorporate all EPA WACOR comments into all final deliverables, unless otherwise agreed upon by the EPA WACOR. The contractor will adhere to all applicable EPA management control procedures as implemented by the EPA Contracting Officer (CO), EPA CL-COR, and EPA WACOR.

Quick Response: Under this Performance Work Statement the contractor may be required to provide information for use by EPA for quick responses and analyses of options, issues, and policy decisions. Quick responses are those which require completion in one to five working days.

Travel:

The contractor shall be required to travel under this work assignment. Travel may be to participate with EPA in on site data collection, in meetings with trade associations, and to meet with EPA to discuss methodology and other important issues associated with the project. A request for approval for any travel directly chargeable to this work assignment must be submitted and approved by the CL-COR before travel begins.

Deliverable Formatting: All memos, draft comments, summaries and responses, and chapters are to be provided in electronic form using Word and/or Excel/Access, ArcView, or, in special cases another software program agreed to by EPA. Memos are to be written in a manner which will make them easy to turn into draft chapters for the Final Report. For deliverables that are in Word or pdf versions of Word documents, that are intended to be shared with management or the public, the contractor shall use decimal align in all tables containing columns of numbers of

varying digits, whether decimal places are reported or not. All final materials, e.g., memos, chapters, etc. are to be prepared only after receiving written technical direction from the EPA WACOR and will be formatted to be in compliance with the Section 508 Amendment to the Rehabilitation Act of 1973.

VIII. Performance Work Statement

The EPA WACOR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the EPA WACOR's comments.

Task 1 - Prepare Work Plan

The contractor shall prepare a workplan within 15 calendar days after receipt of work assignment signed by the CO. The work plan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task, and a staffing plan. The EPA WACOR, the CL-COR and the CO will review the work plan. However, only the CO can approve/disapprove, suggest revisions, or change the work plan. Official revisions will be given to the contractor by the CO. The contractor shall prepare a revised work plan incorporating the CO's comments, if required.

Deliverables and schedule under Task 1

1a. Work Plan within 15 calendar days of receipt of work assignment.

Task 2 - Quality Assurance

Quality Assurance Project Plans are required under the Agency's Quality Assurance Policy CIO-2105, formerly EPA Order 5360.1 A2 and implementing guidance CIO-2105-P-01-0. All projects that involve the generation, collection, analysis, and use of environmental data must have an approved Quality Assurance Project Plan (QAPP) in place prior to the commencement of the work. Examples of these environmental data operations are provided in **Table 2-1** below.

Table 2-1. Examples of work that involves the collection, generation, evaluation, analysis, or use of environmental data

Item	Examples
Data	Includes field sampling information (sample location information, flow measurements, temperature, pH, physical observations, etc.), laboratory measurements (e.g., chemical, physical, biological, radiological measurements), data collected from questionnaires, economic data, census data, and any other types of existing data (i.e., data generated for a different purpose or generated by a different organization)
Data generation	Includes field studies, laboratory studies, and generation of modeling output
Data collection	Includes field surveys, questionnaire surveys, literature searches, and third party data
Data evaluation	Includes data inspection, review, assessment, and validation
Data analysis	Includes statistical, engineering, and economic analysis, and testing, evaluation, and validation of methods and models; database creation, data extraction, and data manipulation
Data Use	Any use of data to support EPA decisions, regulations, policy, publications, or tools (including effluent guidelines, 304(m) program, standards, environmental assessments, and models, tools, or reports disseminated by EPA to assist other organizations in implementing environmental programs)

Note that QAPPs are required for the development or revision of models and software that support the generation, collection, evaluation, analysis, or use of data. (A model is set of equations and assumptions used to predict unknown data.) When existing models are used as a tool to generate or evaluate data, the project QAPP must describe the model and explain how it will be used and how its output will be evaluated to ensure the modeling effort meets the overall quality objectives for the project. Development or revision of new models also must be supported by a QAPP that describes the objectives for the model, the quality criteria that will be applied to the model, and the procedures for evaluating whether the model meets those criteria.

2.2 QA Project Plan Requirements

The Contractor has previously prepared a contract-wide Programmatic QAPP (PQAPP) for Contract EP-C-13-039 This PQAPP describes, in a single document, information that is not site or time-specific, but applies throughout the program (i.e., the duration of the contract). When tasked with preparing the PQAPP, the Contractor was informed that the PQAPP may need to be supplemented with project-specific details to support individual work assignments that involve the collection, generation, evaluation, analysis, or use of environmental data.

The activities in this work assignment may involve gathering, evaluating, analyzing, and otherwise using existing environmental data (also known as “secondary” use of data). However, EPA has determined that the Contractor is operating under the existing PQAPP and that the PQAPP addresses QA requirements for this work assignment. In support of this work assignment, the Contractor shall ensure that the work plan provides enough detail to clearly describe:

- Specific objectives of the project(s) supported by this work assignment, including typical questions that must be answered when using existing sources of data to perform economic analyses in support of the study of the petroleum refining industry.
- The type of data to be gathered or used under this work assignment to support the project objectives—including data from search engines, federal databases, EPA data bases—as a well as a rationale for when those databases are appropriate and what data available in each will support the project
- The quality objectives needed to ensure the data will support the project objectives, and
- The Quality Assurance/Quality Control (QA/QC) activities to be performed to ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed.

2.3 Additional QA Documentation Required

The EPA Quality Manual for Environmental Programs (CIO 2105-P-01-0, May 2000) requires published Agency reports containing environmental data to be accompanied by a readily identifiable section or appendix that discusses the quality of the data and any limitations on the use of the data with respect to their originally intended application. The EPA Quality Manual further requires Agency reports to be reviewed by the QA manager (or other authorized official) before publication to ensure that an adequate discussion of QA and QC activities is included. The purpose of the review is to ensure the reports provide enough information to enable a knowledgeable reader to determine if the technical and quality goals were

met for the intended use of the data. Reports should include applicable statements regarding the use of any environmental data presented as a caution about possible misuse of the data for other purposes. For example, a Technical Support Document or Study Report must include a clear discussion of the quality management strategies (including the project goals and objectives, quality objectives and criteria, and QA/QC practices) that were employed to control and document the quality of data generated and used. These documents should also discuss any deviations from procedures documented in the EPA-approved QAPP(s) supporting the project, the reasons for those deviations, any impact of those deviations had on data quality, and steps taken to mitigate data quality issues.

In support of this Agency requirement, all major deliverables (e.g., Technical Support Documents, Study Reports, Analytical Methods) produced by the Contractor under this work assignment must include a discussion of the QA/QC activities that were performed to support the deliverable, and this discussion must provide a sufficient level of detail to allow the EAD QA Coordinator (or designee) to determine if the QA/QC strategies implemented for the project sufficiently support the intended use of the data. Upon receipt, the WACOR will review each applicable report and certify whether the Contractor has adhered to the QA requirements documented in the Contractor's PQAPP.

The Contractor also shall provide EPA with monthly reports of QA activities performed during implementation of this work assignment. These monthly QA reports shall identify QA activities performed to support implementation of this work assignment, problems encountered, deviations from the QAPP, and corrective actions taken. If desired, the Contractor may include this as a part of the contract-required monthly financial/technical progress report.

2.4 Data Quality Act/Information Quality Guidelines Requirements

The Data Quality Act (also known as the Information Quality Act) requires EPA to ensure that influential information disseminated by the Agency is sufficiently transparent in terms of data and methods of analysis that the information is capable of being substantially reproduced. To support compliance with these data transparency/ data reproducibility requirements, EPA plans to include QAPPs as part of any rulemaking record documentation to be made available to the public. (This includes PQAPPs and Supplemental (SQAPPs).) The Contractor may claim information in QAPPs as confidential; if the Contractor chooses to do so, the Contractor shall submit a sanitized (i.e., public) version and an unsanitized (i.e., confidential) version at the time the QAPP is submitted for approval by EPA. The sanitized version shall be included in the public docket for the applicable rulemaking (or other docket record), and the unsanitized version shall be included in a non-public (i.e., confidential) portion of the docket (or record).

Information contained in the approved QAPP shall be transparent and reproducible and meet the requirements of the Data Quality Act for influential information. EPA's *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency* (EPA/260R-02-008, October 2002), referred to as "EPA's Information Quality Guidelines," describe EPA procedures for meeting Data Quality Act requirements. Section 6.3 of EPA's Information Quality Guidelines indicate that "especially rigorous robustness checks" should be applied in circumstances where quality-related information cannot be disclosed due to confidentiality issues. Where applicable, the Contractors should indicate which results were obtained using the tools (Standard Operating Procedures (SOPs), checklists, and guidelines) that the Contractor designates as confidential so that the EPA WACOR can easily identify the areas that shall require rigorous robustness checks and document that those checks have been performed. At the discretion of the EPA WACOR, the Contractors may be requested to prepare pre-dissemination review checklist as described in Section 5.5 of

the Office of Water Quality Management Plan, February 2009. If this is required, the EPA WACOR shall notify the Contractor through written technical direction.

2.5 Task 2 QA Deliverables

Deliverable	Projected Schedule Date
Monthly reports of QA work performed (may be included in the Contractor's monthly progress report)	Monthly throughout the WA period of performance

Table 2-2. Justification for Use of Existing PQAPP as the Sole Quality Documentation for Projects that Rely on Existing Data

QAPP Element	Sufficiently Addressed in PQAPP	Not Applicable to Project	Explanatory Comments
A1. Title & Approval Sheet			
Project title	X		WA X-XX Economic Support for Petroleum Refining Study.
Organization's name	X		Abt Associates
Effective date and/or version identifier	X		Page ii of PQAPP
Dated signature of Organization's project manager	X		Page ii of PQAPP
Dated signature of Organization's QA manager	X		Page ii of PQAPP
Other signatures, as needed (e.g., EAD Project Officer, EAD QA Coordinator)	X		Page ii of PQAPP
Revision History	X		Page ii of PQAPP
A2. Table of Contents			
Includes sections, figures, tables, references, and appendices	X		Page v of PQAPP
Document control information indicated (when required by the EPA Project Manager and QA Manager)	X		Page v of PQAPP
A3. Distribution List			
Includes all individuals who are to implement or otherwise receive the QAPP and identifies their organization	X		2.1 pages 5-7 of PQAPP
A4. Project/Task Organization			
Identifies key individuals with their responsibilities (e.g., data users, decision makers, project QA manager, Subcontractors, etc.) and contact info.	X		Reference PQAPP section 2.1 on page 5. Referencing table 2.1 and descriptions on page 7 of PQAPPOST WACOR: James C. Covington, III
Organization chart shows lines of authority & reporting responsibilities	X		Reference PQAPP section 2.1 for overall picture
Project QA manager position indicates independence from unit collecting/using data	X		Reference PQAPP section 2.1 for overall picture
A5. Problem Definition/Background			
Clearly states problem to be resolved, decision to be made, or hypothesis to be tested	X		PQAPP Section 2.2 – goal of program is to conduct economic analyses for ELGs See PQAPP table 2-2: cost-benefit and economic impact analysis, industry profiles, collection /preparation of reports, review and analysis of public comments, legislative and litigation support, database development and management,. Also see WA
Identifies project objectives or goals	X		See WA
Historical & background information			
Cites applicable technical, regulatory, or program-specific quality standards, criteria, or objectives	X		Section 2.2 – goal of program is to conduct economic analyses for ELGs and studies. See table 2-2 for specific analyses
A6. Project/Task Description			
List measurements to be made/data to obtain	X		Section 2.3 PQAPP
Notes special personnel or equipment requirements		x	
Provides work schedule		x	

QAPP Element	Sufficiently Addressed in PQAPP	Not Applicable to Project	Explanatory Comments
A7. Overall Quality Objectives & Criteria			
States overall quality objectives and limits needed to support the project goals and objectives cited in A5	X		See 2.3 of PQAPP
A8. Special Training Requirements/ Certifications			
Identifies specialized skills, training or certification requirements	X		See 2.5 of PQAPP
Discusses how this training will be provided/the necessary skills will be assured and documented	X		See 2.5 of PQAPP
A9. Project-level Documents & Records			
Describes process for distributing the approved QAPP and other planning documents (and updates) to staff	X		See section 2 of PQAPP
Identifies final work products that will result from the project	X		Section 2.6 of PQAPP
Describes the process for developing, reviewing, approving, and disseminating the final work products and individuals responsible for these processes	X		Appendix A of PQAPP
B1. Data Needs			
Detailed list/description of the specific data elements needed to support project goals	X		See Table 3-1 of PQAPP headings: Company Financial Data,, & Other Industry Data, & valuation and Economic Impact: including specifically:, US Census Bureau, EIA, RMS
Description of the scope of the data elements that you need (e.g., data supporting specific treatment options vs. the full range of options, data supporting the entire country vs. a specific geographic region)	X		See Table 3-1 of PQAPP headings: Company Financial Data,, & Other Industry Data, & valuation and Economic Impact: including specifically:, US Census Bureau, EIA, RMS
If project includes development or update of a project database, QAPP identifies and defines each database field		x	
B2. Potential Data Sources			
Identifies and describes potential sources of the existing data needed (e.g., photographs, topographical maps, facility or state files, census data, meteorological data, publications, etc.) and the rationale for their use	X		See Table 3.1 of PQAPP
If literature searches are used, describes the search engines that will be used and key search terms	X		See Table 3.1 of PQAPP
If databases or models will be used, describe the database (or model) in terms of who developed it and operates it and the type of data it contains	X		See table 3.2 of PQAPP
For other potential sources, describe the potential sources & rationale for considering or using each one		x	

QAPP Element	Sufficiently Addressed in PQAPP	Not Applicable to Project	Explanatory Comments
B3. Criteria for Selecting Data Sources			
Identifies each criterion that will be used to determine if the candidate data sources listed in B2 will meet your needs, and how each criterion is defined. (Criteria vary by project; examples include reliability, age, applicability, quantity, format, and others)	X		PQAPP 3.1.3 Criteria for Selecting Data Sources
Explains rating system used to evaluate source against each criterion		x	
B4. Data Value Selection Approach			
For data sources that meet the criteria identified in B3: Describes the criteria and procedures that will be used to determine which value(s) identified in the acceptable sources are most appropriate for use in the project	X		Section 3.1.4 of PQAPP
For data that do not meet these pre-established criteria but are the only data available, explains how the decision to use such data will be made and documented		x	
B5. Resolving Data Gaps			
Describes the process for identifying and addressing data gaps that still exist after candidate data sources have been evaluated and appropriate data values have been identified	X		Section 3.1.5 of PQAPP
Describes the process that will be used to address any new data needs revealed during the data gathering process (i.e., additional data elements not previously considered)		x	
B6. Data Gathering Documentation and Records			
Describes how results of the source selection and the data value selection will be documented, including any sources or values that were rejected and the rationale for not using them	X		See Section 3.1.6
For data that are deemed acceptable and that will be used, explains how each data element will be associated to its original source citation (i.e., bibliographic information, telephone contact reports, email messages, etc.)	X		See Section 3.1.6
C1. Standardization of Data Elements			
Describes the process to ensure that units and other key measures are captured and standardized (or otherwise made comparable) in the database	X		See Section 3.2.1

QAPP Element	Sufficiently Addressed in PQAPP	Not Applicable to Project	Explanatory Comments
If the project requires that all fields be standardized to a single set of units (e.g., US dollars for economic data, µg/L for chemical data), identifies the standard units that will be required for each data element	X		See Section 3.2.1
Identifies the procedures for converting data reported in other units to the standardized units, including any rounding or truncating procedures, and procedures for ensuring these conversions are performed correctly	X		See Section 3.2.1
If standardization of data elements is not needed, explains the process for ensuring that data presented in varying units are comparable enough for use in the project and that project staff members and other data users will be able to readily identify differences in units	X		See Section 3.2.1
C2. Data Entry			
Explains the process for manually entering selected data into the project database, who will be responsible for such data entry, and the QC strategies that will be used to ensure that the database accurately and completely captures the data as presented in the original source	X		See Section 3.2.2
C3. Merging or Uploading Electronic Data from Existing Sources			
If data are available electronically and will be uploaded or merged into the project database: describes the procedures that will be followed to ensure that errors are not introduced during the upload/merge process and that the final database reflects the original dataset(s)	X		See Section 3.2.3
C4. Data Review			
Describes the process for ensuring that the data have been recorded, transmitted, and processed correctly	X		See Section 3.2.4
C5. Data Storage and Manipulation			
Describes how the existing data will be stored	X		See Section 3.2.5
Describes who will be responsible for access to and maintenance of the stored data	X		See Section 3.2.5
Describes how the existing data will be incorporated with other project data to support the project goal/decision to be made	X		See Section 3.2.5

QAPP Element	Sufficiently Addressed in PQAPP	Not Applicable to Project	Explanatory Comments
Describes the QC strategies that will be employed to ensure that the integrity of the data is not compromised during data storage, access/retrieval, updates, or other manipulation	X		See Section 3.2.5
D1. Data Quality Verification and Data Quality Reporting			
Describes the process for verifying that the final set of data meets the overall criteria originally specified for the project	X		Section 3.3.1
Describes how these determinations will be documented and reported	X		Section 3.3.1
For data that don't meet the pre-established specifications, explains the process for determining if they are usable and how such decisions will be documented	X		Section 3.3.1
D2. Use/Analysis of the Existing Data			
Provides details regarding the exact means in which the data will be used to meet project objectives	X		Section 3.3.2
Includes an explanation or list of the information to be calculated and the data elements that will be used to make those calculations	X		Section 3.3.2
Includes applicable calculations and equations (if known) or explanations of how they will be developed	X		Section 3.3.2
Includes plans for excluding outliers	X		Section 3.3.2
D3. Methodology Documentation and Conceptual Review			
If exact methodologies for analyzing the data will need to be developed or modified during the course of data analysis, explains the process by which such methodologies will be documented, who is responsible for reviewing/approving their use, and how the methodologies will be checked to ensure they yield the desired products	X		Section 3.2.3
D4. Technical Review of the Data Analysis			
Describes activities that will be used to ensure the data analyses are being implemented as specified and will support project objectives	X		Section 3.3.4
Explains procedures for identifying and notifying appropriate personnel if changes to the originally planned procedures are warranted, and the process for approving, documenting and implementing such changes	X		Section 3.3.4

QAPP Element	Sufficiently Addressed in PQAPP	Not Applicable to Project	Explanatory Comments
D5. Final Verification of Data Analysis and Reconciliation with User Requirements			
Describes the process for reviewing the final work product to ensure that the work was generated in accordance with the QAPP, and that the work product addresses the overall project goals and objectives	X		Section 3.3.5
Describes how the results of this assessment will be documented	X		Section 3.3.5
Describes how any limitations of the data or data analyses that were used to prepare the final work product will be documented and communicated	X		Section 3.3.5

Task 3 - Prepare Standardized Naming Convention and Version Control Memorandum

The contractor shall adhere to the EPA WACOR approved standardized naming convention and version control (SNCVC) plan that was developed under the Construction and Development WA 0-01 of the contract EP-C-07-023 (WA0-01_T1_SNCVC_08.31.07_V1.pdf). The contractor shall use this standardized convention for all deliverables associated with this work assignment.

The EPA WACOR may request the contractor through written technical direction to amend the SNCVC memorandum at any point under this WA. The EPA WACOR will review the revised memorandum and then provide the contractor with written notification of approval or edits that need to be made. The contractor shall prepare the edited SNCVC memorandum incorporating the EPA WACOR's comments, if required. After receiving notification of approval the contractor shall use the revised SNCVC.

Deliverables and schedule under Task 3

3a. SNCVC memorandum within 7 calendar days if required.

3b. If required, revised memorandum within 3 calendar days of receipt of comments from the EPA WACOR, at technical direction of EPA WACOR.

Task 4- Industry Profile

The contractor shall continue development of the industry profile of the petroleum refining industry began in the previous performance period's work assignment, WA 2-06. This product shall be formatted as a standalone report. The profile should include a discussion of the financial health of the petroleum refining sector, addressing issues such as consolidation, small business characteristics, regulations (both currently in place and new potential regulatory efforts) that may affect the sector's profit margins, the geographic distribution of firms and how the spatial dispersion may impact financial and business decision making, and input/output products transportation that may impact petroleum refining facilities. The contractor, to the extent feasible, should characterize cost of capital for the sector, reporting metrics like customary debt to equity

ratios, etc. The contractor shall characterize how petroleum refineries make decisions about investment in new capital costs. The profile shall also include an industry outlook section (including crude oil input impacts on future outlooks).

To streamline efforts on this WA, the contractor shall refer to Appendix E of the *Economic Analysis for Final 316(b) Existing Facilities Rule* to pull general information and a basic outline of this profile. This outline shall include: Background, Introduction, Domestic Production, Structure and Competitiveness, Financial Condition and Performance, and Industry Outlook. All of the information should be as up-to-date as possible.

EPA will provide a report developed by the engineering contractor that summarizes the current industry make-up. The contractor shall use this document to better understand the scope of EPA's study.

The initial draft of this profile shall include a placeholder outline of information and analysis that will be added to the profile upon completion of the §308 questionnaire data collection activity described in the next task (§308 Letters). Information received via the §308 questionnaires is expected to provide insight into financial performance and condition of non-public reporting refineries (including small business-owned refineries) and will supplement information obtained for refineries owned by public-reporting firms. The §308 questionnaire information is also expected to provide insight on the factors driving recent and prospective future capital outlays at refineries that may affect, (1) the kinds of technology additions needed for discharge treatment under a revised effluent guideline for the Petroleum Refining industry category, and (2) the ability of refinery owners to finance the technology outlays needed for compliance with revised effluent guidelines.

Deliverable	Due Date
Draft Refining Industry Profile	Draft refining profile will be due by June 1, 2017. Revised final draft will be due three weeks after comments from WACOR but no later than July 31, 2017.
Final Refining Industry profile	

Task 5-§308 Letter support

The contractor shall continue to support EPA in identifying potential §308-letter recipients. The contractor shall build off the existing Petroleum Refining database, which attempts to categorize petroleum refiners in America, including their parent company information. EPA and the contractor shall populate this excel file with relevant information from public financial forms (most likely at the company level).

The contractor shall develop criteria and analysis that could be used in selecting refineries for receiving §308 letters and site visits. This information will supplement the criteria and analysis based on pollutant discharge and treatment technologies.

In the previous performance period, the contractor drafted financial and related questions for inclusion in a §308 questionnaire. The contractor shall continue to work with the EPA WACOR to refine these questions for inclusion in the §308 letter.

Deliverable	Due Date
§308 letter questions	Due two weeks after receipt of comments from the EPA WACOR. Quick turnaround deliverables are
§308 letter summaries	Due three weeks after receipt of comments from EPA WACOR. Revised final versions are due two weeks after second set of comments from the WACOR (if provided) but no later than February 28, 2017

Task6-Site Visits

The contractor shall provide support to EPA in conducting site visits at refineries. Support may include attending conference calls with engineering contractor and facility personnel to obtain facility information, providing financial and economic memos after site-visits, and conducting follow-up activities. If the EPA WACOR attends the site visit, the contractor shall maintain the information collected on the site visit by the EPA WACOR once it is provided to the contractor. The contractor shall assume 3 site visit economic/financial reports will be prepared under this task.

Deliverable	Due Date
Draft financial memo for site visit	Due two weeks after receipt of technical direction from the EPA WACOR
Final financial memo for site visit	Revised final versions are due two weeks after second set of comments from the WACOR, but no later than July 31, 2017.

Task 7-Environmental Justice Analysis Support

The contractor shall prepare an Environmental Justice (EJ) profile to support the Petroleum Refining study. The profile will describe the socioeconomic and demographic composition of populations within specified radiuses of the refineries in the Petroleum Refining database, with focus on the presence of populations of EJ interest (low income and minority populations, or EJ populations). The profile will compare the presence of EJ populations in the specified nearby radiuses of refineries relative to the socioeconomic/demographic composition of larger areas (e.g., the Metropolitan Statistical Area, county, or other relevant jurisdictional unit) surrounding the refineries.

The contractor shall work with the WACOR to outline potential process and considerations for accounting for EJ factors in the Petroleum Refining pre-regulation study.

Deliverable	Due Date
Draft environmental justice analysis methodology memorandum	Due two weeks after receipt of technical direction from the EPA WACOR

Final environmental justice analysis methodology memorandum	Revised final versions are due two weeks after second set of comments from the WACOR, but no later than July 31, 2017.
Final draft environmental justice profile	Final versions are due two weeks after second set of comments from the WACOR, but no later than July 31, 2017.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-45			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-13-039			Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3			Title of Work Assignment/SF Site Name Econ Analysis for Pet Refining			
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW A1					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval						Period of Performance From 08/01/2016 To 07/31/2017			
Comments:									
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund									
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period: Cost/Fee: \$0.00 LOE: 0 09/11/2013 To 07/31/2017									
This Action: \$106,027.00 900									
Total: \$106,027.00 900									
Work Plan / Cost Estimate Approvals									
Contractor WP Dated: 08/17/2016 Cost/Fee \$106,027.00 LOE: 900									
Cumulative Approved: Cost/Fee \$106,027.00 LOE: 900									
Work Assignment Manager Name James Covington <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> (Signature) (Date) </div>						Branch/Mail Code: Phone Number: 202-566-1034 FAX Number:			
Project Officer Name Ahmar Siddiqui <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> (Signature) (Date) </div>						Branch/Mail Code: Phone Number: 202-566-1044 FAX Number:			
Other Agency Official Name <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> (Signature) (Date) </div>						Branch/Mail Code: Phone Number: FAX Number:			
Contracting Official Name Tammy Adams <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;"> (Signature) (Date) </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545			

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-47				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-13-039			Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3			Title of Work Assignment/SF Site Name SP Health Benefits Survey				
Contractor ABT ASSOCIATES INC.					Specify Section and paragraph of Contract SOW section A.2.2					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 09/29/2016 To 07/31/2017				
Comments: The purpose is to initiate Work Assignment 3-47. The contractor shall submit an estimated Work Plan and an estimated budget in accordance with the contract. See attached Performance Work Statement.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 0				
09/11/2013 To 07/31/2017										
This Action:						1,221				
Total:						1,221				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Nathalie Simon						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 202-566-2347				
						FAX Number:				
Project Officer Name Ahmar Siddiqui						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 202-566-1044				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number:				
						FAX Number:				
Contracting Official Name Tammy Adams						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 513-487-2030				
						FAX Number: 513-487-2545				

Digitally signed by TAMMY ADAMS
 DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff,
 cn=TAMMY ADAMS, dnQualifier=0000018417
 Date: 2016.09.29 14:31:03 -04'00'

PERFORMANCE WORK STATEMENT

Title:	Estimating the Value of Health Benefits Using a Stated Preference Survey
Contractor:	Abt Associates
Contract No.:	EP-C-13-039
Work Assignment Number:	3-47
Estimated Period of Performance:	Date of issuance – July 31, 2017
Estimated Level of Effort:	1,221 hours
Key EPA Personnel:	Work Assignment Contracting Officer's Representative (WACOR): Nathalie Simon OP/ NCEE (MC 1809T) 202-566-2347

I. Background and Purpose:

The US Environmental Protection Agency (EPA) is required by statute and/or executive order to perform benefit-cost analysis of rulemakings. For impacts on human health, a key challenge is to estimate the expected health benefits in dollar terms, largely because willingness to pay (WTP) or cost-of-illness estimates are not always available for the health effects associated with different rules. The literature contains many valuation estimates associated with occupational fatalities; however, there are far fewer estimates available for a number of potentially important health endpoints affected by environmental policy. These endpoints include risk of fatal and non-fatal cancer of many types; cardiovascular outcomes, such as stroke and hypertension; and cognitive effects (e.g., Alzheimer's). In order to provide a more comprehensive assessment of the benefits associated with rules that reduce health risks, analysts need WTP estimates for different health endpoints affected by rules. For many health endpoints, stated preference (SP) methods are a valuable method to elicit the WTP estimates needed for more complete benefits analysis.

EPA is in the process of developing a stated preference survey instrument to elicit willingness to pay estimates for selected health benefits. A key set of health effects with limited valuation data are birth and early life stage outcomes, which are associated with a wide array of environmental contaminants including lead, arsenic, mercury, and many other chemicals. EPA's National Center for Environmental Economics (NCEE) met with economists and policy analysts from the Offices of Air and Radiation (OAR), Office of Water (OW), Chemical Safety and Pollution Prevention (OCSPP), and Land and Emergency Management (OLEM) to gather information on specific health endpoints and contaminants for which EPA routinely lacks values and/or are

likely to be the subject of future rulemaking efforts. The results of these discussions indicate that birth and neurodevelopmental outcomes: (1) often lack WTP estimates for valuation, (2) are associated with many contaminants of concern across program offices, and (3) are likely to be encountered in one or more future rulemakings. The objective of the survey project is to elicit individuals' willingness to pay (WTP) for reduced risks of outcomes that result from exposures in utero and during early life stages, such as birthweight, preterm birth, and neurodevelopmental effects.

The purpose of this work assignment (WA) is to obtain contractor support for key activities needed to develop and conduct the stated preference survey of the selected health risk reduction benefits. Specifically, contractor support is needed for establishing a technical review panel of experts, arranging for focus groups and cognitive interviews, identifying appropriate non-response bias tests, drafting the information collection request (ICR) package, recruiting the sample for one split of our anticipated split sample design, pre-testing and administering the survey, and cleaning and coding the data. The contractor support shall aid staff in NCEE in the development and administration of a high quality stated preference survey. Results of this stated preference survey will fill gaps in EPA's ability to monetize noncancer health benefits in policy analyses.

II. General Requirements of the Work Assignment and Schedule

Confidential Business Information: During the course of the work assignment, the contractor will not be accessing and evaluating CBI.

Budget Reporting: The contractor must also report to the EPA WACOR when 75 percent of the approved Work Plan budget has been depleted.

Identification as Contracting Staff: To avoid the perception that contractor personnel are EPA employees, contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties and prior to the start of any meeting. Contractor personnel are prohibited from acting as the Agency's official representative. When speaking with the public, the contractor shall refer all interpretations of policy to the EPA WACOR.

Limitation of Contractor Activities: The contractor shall submit drafts of all deliverables to the EPA WACOR for review prior to submission of the final product. These drafts will clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources and data that support any conclusions and recommendations. The contractor shall incorporate all EPA WACOR comments into all final deliverables, unless otherwise agreed upon by the EPA WACOR. The contractor shall adhere to all applicable EPA management control procedures as implemented by the EPA Contracting Officer (CO), EPA Contract-Level Contracting Officer's Representative (CL-COR), and EPA WACOR.

Quick Response: Under this Performance Work Statement (PWS) the contractor may be required to provide information for use by EPA for quick responses and analyses of options, issues, and policy decisions. Quick responses are those which require completion in one to five working days.

Deliverable Formatting: All memos, draft comments, summaries and responses, and chapters are to be provided in electronic form using Word and/or Excel/Access, ArcView, or, in special cases another software program agreed to by EPA. Memos are to be written in a manner which will make them easy to turn into draft chapters for the Final Report. For deliverables that are in Word or pdf versions of Word documents, that are intended to be shared with management or the public, the contractor shall use decimal align in all tables containing columns of numbers of varying digits, whether decimal places are reported or not. All final materials, e.g., memos, chapters, etc. are to be prepared only after receiving written technical direction from the EPA WACOR and will be formatted to be in compliance with the Section 508 Amendment to the Rehabilitation Act of 1973.

Quality Assurance (QA) Requirements: All analyses requiring the collection and manipulation of data and models will be conducted in accordance with the EPA-approved programmatic quality assurance project plan (pQAPP) developed under work assignment 0-01 of this contract, supplemented as needed by procedures outlined in the QAPP previously developed for this work under contract EP-C-07-023. The PQAPP and QAPP describe procedures for assuring the quality of the primary and secondary environmental and economic data used for this work assignment. EPA will be conducting to focus groups and interviews described below in Tasks 3 and 5. The contractor shall prepare transcripts of the focus groups and interviews and ensure their accuracy. The PQAPP describes procedures for data entry, data evaluation, and data quality verification that are sufficient to ensure the accuracy of text transcripts. Should the need arise, the approved QAPP will be modified to incorporate any modifications to the analysis tasks performed under this WA.

III. CONTRACT LEVEL STATEMENT OF WORK REFERENCE

The tasks to be performed under this work assignment are consistent with the contract PWS. This work falls under key program areas established for contract EP-C-13-039 including: improvements to benefits analysis and economic methodologies (stated preference analysis) as described in section A.2.2 of the PWS.

IV. STATEMENT OF WORK TASKS

Task 1 - Prepare Work Plan and Administer Work Assignment

The contractor shall prepare a work plan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer. The work plan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, and a detailed cost estimate by task and a staffing plan. The WACOR, the CL-COR, and the CO will review the work plan. However, only the CO can approve/disapprove the work plan. The contractor shall prepare a revised work plan incorporating the CO's, if required. A kick-off meeting between the contractor, WACOR and other relevant EPA staff identified by the WACOR will be held to discuss the approved work plan.

The contractor shall also identify how the work assignment will be administered.

Deliverables and Schedule under Task 1

- 1a. Work plan within 15 calendar days of receipt of work assignment.
- 1b. Kick-off meeting within 7 calendar days of work plan approval.

Task 2 – Establish and coordinate activities of expert panel

The contractor shall coordinate activities of a team of experts to provide input at several points in the survey development process in the form of comments on draft materials, suggestions and other advice related to the health benefits stated preference survey and a second stated preference survey under development related to water quality benefits. The expert panel shall consist of up to five members from the academic or scientific community with backgrounds in environmental economics, stated preference valuation, and survey methodology. At least two of the experts shall have expertise in valuing reductions in health risks and at least two shall have experience in nonmarket valuation of surface water quality improvements, with the possibility that some members will have experience in both areas. The WACOR will provide additional criteria through technical direction to assist the contractor in selecting experts. Activities of the expert panel will include providing advice on the development of the survey instruments based on outcomes of focus group discussions, providing recommendations on the study designs for each study, proposing alternatives and improvements to the data analysis plans for each study. The expert panel members shall provide their individual comments and suggestions on all materials in writing. The expert input provided under this task would not serve to meet the requirements set forth in the Peer Review Guidelines for peer review of these ISI products. The required peer review would be undertaken by other means, and not via this same contract and Work Assignment.

The contractor shall arrange for up to six meetings with the expert panel with at least one of those meetings occurring in person. Prior to arranging any in-person meetings, the contractor and WACOR will explore the feasibility of using EPA facilities. The WACOR will provide all electronic versions of documents to be discussed to the contractor in advance of the meetings for distribution. The contractor shall take detailed notes at each meeting of the expert panel and shall provide the WACOR with detailed summaries of the meetings. The contractor shall provide the WACOR with electronic versions of the completed reviews.

Deliverables and Schedule under Task 2

- 2a) Discussion between contractor and WACOR regarding general composition of the expert panel to take place within one week of receipt of the WA.
- 2b) Confirmation from contractor of expert panel participation within one week of discussion noted in 2a.
- 2c) Schedule meetings within 1 week of receiving technical direction from WACOR and distribute relevant materials to expert panel members. Meetings to be scheduled at a time and date agreed upon by WACOR and contractor taking into account team member availability.

2d) Meeting summaries and expert panel member reviews to be provided within two weeks of meetings.

Task 3 - Facilitate and Arrange for 6 Focus Groups for Health Stated Preference Survey Development

The six (6) focus groups are expected to be held in the Washington, DC metro area, but may include others such as Baltimore, MD and Richmond, VA. The WACOR will provide technical direction as to the expected schedule and final locations.

The contractor shall recruit focus group participants based on criteria developed by EPA and provided by the WACOR. The contractor shall arrange for each focus group to be conducted in an appropriate facility with audio-visual support. Each focus group shall be audio- and video-recorded in digital format and delivered to EPA on a Digital Versatile Disk (DVD) or as a digital download. In addition, written transcripts of each focus group shall be prepared. The contractor shall recruit 12-14 individuals for each focus group, with the goal of 9-10 participants in each group. Each focus group shall last approximately 2 hours and be conducted at a convenient time and in a convenient location.

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated cost of \$20,000 or more, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare approval internal paperwork for the event and will advise the CO when appropriate signatures have been obtained. At that point, the CO will notify the contractor when effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

The WACOR, in conjunction with the appropriate personnel in NCEE, will secure ICR approval for the focus groups under an existing agreement with the Office of Management and Budget (OMB) for expedited review.

Deliverables and schedule under Task 3

- 3a. Establish location and initial dates for six (6) focus groups within 1 week of receiving technical direction from WACOR.
- 3b. Recruit participants for first focus group within 1 week of receiving final location information and criteria from EPA and for subsequent focus groups within 1 week of receiving criteria for those groups.
- 3c. Arrange audio- and/or video- recordings and written transcripts of each group within 1 week of receiving final location information from EPA and for subsequent focus groups within 1 week of receiving criteria for those groups.
- 3d. Submit audio- and video-recordings to WACOR within 1 week of completing each set of focus groups.

Task 4 – Design Layout and Graphics for Mixed-Mode Survey

EPA anticipates the health survey will be administered in an electronic form using a split sample design for recruitment. Specifically, EPA plans to administer the survey via the internet to a sample drawn from a probability based internet panel (PBIP) as well as a sample of respondents recruited directly via mail. The survey instrument administered to respondents recruited by mail should look identical and operate in the exact same manner as versions accessed by the PBIP. Ideally, the same electronic versions of the survey would be administered to each sample. To that end and to the extent possible, the contractor should avoid duplication of effort in the development of the electronic survey versions for administration via the PBIP and the mail-recruited sample. Note that EPA is expecting multiple versions of the survey to be administered to each sample. Prior to their administration in a pretest, the survey instruments will be tested in cognitive interviews (see Task 5). The contractor shall provide separate electronic files for each version of the survey for review. The EPA will review the files and provide comments through the WACOR after which the contractor shall revise the electronic files and program code according to comments received from the WACOR.

Once uploaded to the internet, the contractor shall provide a means for the WACOR to test operation of each version of the survey. EPA shall be given access to each survey version using a web link. The EPA will review the operation of the electronic surveys and provide comments after which the contractor shall revise the electronic survey according to comments from the WACOR.

Deliverables and Schedule under Task 4

4a. Submit electronic files of survey instruments for use in cognitive interviews within 2 weeks of receiving technical direction from the WACOR.

4b. Revise electronic versions of cognitive interview surveys within 1 week of receiving comments from the WACOR.

4c. Revise electronic versions of pretest survey within 1 week of receiving comments from the WACOR.

4c. Revise electronic versions of final survey within 1 week of receiving comments from the WACOR.

Task 5 - Facilitate and Arrange for 20 One-on-One Interviews for Health Survey Development

At the conclusion of the focus groups for developing the health survey instrument, the contractor shall arrange for a series of up to 12 one-on-one interviews with potential respondents. After the peer review of the survey instrument the contractor shall arrange for up to 8 additional one-on-one interviews with potential respondents. Each interview shall last approximately 50-60 minutes. Computers with necessary software shall be available for the interviewees to facilitate testing of the electronic survey instrument. EPA will conduct these interviews to test different versions of the survey instrument and will provide all materials for the participants.

The contractor shall recruit participants according to criteria provided by the WACOR. The contractor shall provide an appropriate facility and location for these interviews. The contractor shall arrange for these interviews to be audio- and video-recorded in digital format and delivered to EPA on DVD or by digital download. In addition, written transcripts of each interview shall be prepared. As with the focus groups in task 3, the one-on-one interviews are expected to be held in the Washington, DC metro area, but may include others such as Baltimore, MD and Richmond, VA. The WACOR will provide technical direction as to the expected schedule and final locations.

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated \$20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare approval internal paperwork for the event and will advise the CO when appropriate signatures have been obtained. At that point, the CO will notify the contract when effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

The WACOR, in conjunction with the appropriate personnel in NCEE, will secure ICR approval for the one-on-one interviews under an existing agreement with OMB for expedited review and will work with the contractor to ensure compliance with other relevant OMB guidance.

Deliverables and schedule under Task 5

- 5a. Establish location and dates for 12 one-on-one interviews within 1 week of receiving technical direction from WACOR.
- 5b. Recruit participants for the first set of interviews within 1 week of establishing location and dates for interviews, and recruit participants for the subsequent interviews according to the schedule determined in task 3a.
- 5c. Establish location and dates for 8 additional one-on-one interviews within 1 week of receiving technical direction from WACOR.
- 5d. Arrange audio- and video- recordings and written transcripts of each interview
- 5e. Submit audio- and/or video-recordings to WACOR within one week of completing each set of interviews.

Task 6 – Recommendations for Sampling Strategy

The contractor shall provide a memorandum recommending a sampling strategy to achieve goals expressed by the WACOR. The sampling strategy may include (but may not be limited to) stratification by household structure (e.g., adults with children vs. adults with no children), recruitment method, and versions of the survey. Specifically, EPA plans to administer the survey using a split sample design on recruitment. Namely, EPA expects to administer the survey electronically to both a sample drawn from a PBIP as well as a sample of respondents recruited directly by mail. For both samples, the survey would be administered electronically via the internet.

Deliverables and Schedule under Task 6

6a. Submit a memorandum recommending a sampling strategy within 2 weeks of receiving technical direction from WACOR.

Task 7 – Prepare ICR Package

The contractor shall assist with the preparation of the draft ICR package to be submitted to OMB for approval to conduct the survey. The package shall follow EPA and OMB guidelines and will include all relevant sections identified in the guidance. The contractor shall work with the WACOR to identify sections where input from the contractor will be needed. These sections will likely include but may not be limited to a description of the sampling design, precision requirements, and collection methods and follow up. The WACOR will provide technical assistance on other relevant sections of the package, including providing relevant guidance documents. NCEE will submit the ICR package to EPA's Office of Environmental Information (OEI) for formal transmittal to OMB. The contractor shall assist with revisions to the ICR based on comments from the WACOR up to 3 times.

Deliverables and Schedule under Task 7:

7a. Prepare drafts of selected sections of the ICR package within 2 weeks of completing task 6b.

7b. Revise ICR package up to 3 times within 1 week of receiving comments from WACOR.

Task 8 – Obtain Mailing Addresses for Mail Recruitment Split

The contractor shall obtain a sufficient number of valid residential mailing addresses to recruit a sufficient number of respondents to reach a target of approximately 2000 completed electronic surveys recruited by mail and satisfying the final sampling strategy provided by the WACOR (see task 6). The number of addresses needed will be affected by the number of individuals recruited directly by mail who decline to complete the survey electronically via the internet. Although EPA plans to administer a short survey to individuals who decline to participate in the electronic SP survey (see Task 14), administration of full paper versions of the survey are not planned.

Deliverables and Schedule under Task 8:

8a. Obtain list of valid residential addresses for sample within 1 week of receiving technical direction from WACOR.

Task 9 – Coding Plan

a. Survey Development:

The contractor shall provide assistance in the thematic coding for qualitative content analysis of focus group and cognitive interview data. EPA will determine preliminary coding categories for a first pass through the focus group and cognitive interview transcripts. The contractor shall review the coding categories and provide a review of the analyzed text to help determine whether the codes were appropriately applied.

b. Administered Survey

The contractor shall provide EPA with a coding plan for all closed and open-ended responses on the short paper survey (see Task 14). The plan will include data quality control procedures to ensure data are being captured accurately as well as specific instructions explaining how each response is recorded in the database.

Deliverables and Schedule under Tasks 9a and 9b:

9a. Review EPA's thematic coding categories for qualitative content analysis of focus groups and cognitive interviews 1 week after receiving technical direction from WACOR.

9b. Provide a review of coded text 3 weeks after receiving technical direction from WACOR.

9c. Submit a coding plan for closed and open-ended responses based on the short paper survey (see Task 14) 3 weeks after receiving technical direction from WACOR.

Task 10 – Conduct Pretest

The contractor shall develop and provide to the WACOR a pretest schedule assuming a split sample design (PBIP and mail recruit for electronic survey), including, for the mail recruitment split, dates for mailing an advance invitation letter, the survey instrument link, a reminder postcard, a follow-up letter with the link, and a final reminder letter using priority mail. Each mailing will use a unique identifier indicating the address and survey version provided by the web link.

The pretest will be administered to achieve up to 200 completed responses from the PBIP and up to 200 completed responses from participants recruited directly via mail. The exact number of expected completes will be determined in technical direction from the WACOR.

EPA will print all necessary mailings for the pretest mail-recruit sample other than the address and survey ID labels. The materials for the mail recruit sample will be shipped from EPA to the contractor. The contractor shall print mailing labels and survey ID labels that indicate the survey cell and survey version. The contractor shall apply the labels to the appropriate materials, place the materials in the appropriate envelopes and mail the materials on the dates specified in the pretest schedule. EPA will supply envelopes with prepaid postage for the mailing and returns envelopes.

The contractor shall receive and track pretest responses in the survey response databases. An electronic database will serve as a clearinghouse for all completed surveys by recruitment method and in particular will store vital information about each piece of mail that is used to track

the survey response throughout the data preparation process. This electronic file will consist of survey identification, version, completion status, date completed.

Respondents recruited by mail will have the option to request a paper survey. If a paper survey is requested, the database will also track when the short paper survey (see Task 14) was sent, when it was completed and when data were coded and checked. Under this task, all responses will be recorded according to the data coding plan. The contractor shall deliver a dataset to the WACOR reporting all responses from completed pretest surveys.

Additionally, the contractor shall administer the pretest to the PBIP and provide the cleaned data file to the WACOR upon completion to include selected demographic variables provided for each respondent

Deliverables and Schedule under Task 10:

- 10a. Obtain addresses for pretest sample within 1 week of receiving technical direction from the WACOR.
- 10b. Print labels and apply to survey materials, place materials in envelopes with EPA-paid postage and mail.
- 10c. Administer pretest to PBIP according to sampling strategy.
- 10d. Deliver dataset reporting responses from completed mail-recruited and PBIP pretest surveys within 4 weeks of first mailing.

Task 11-- Pretest Report

During the administration of the pretest, the contractor shall track the success of the survey under each survey recruitment method as well as the nonresponse survey (see task 14) and note any anomalies such as undeliverable mailings, item non-response, incorrectly answered questions, etc. and develop a plan to address those anomalies when administering the main survey. The anomalies and proposed solutions shall be presented in a written report to the EPA. The report shall also include a narrative of the pretest describing the effectiveness of the approach taken to administer the survey and any recommendations to improve the effectiveness for the main sample.

Deliverables and Schedule under Task 11:

- 11a. Track success of pretest.
- 11b. Prepare report on pretest with suggested changes for main sample.

Task 12 – Administer Survey using a Split Sample

For the sample recruited by mail, the EPA will print all necessary mailings (e.g., introduction letter, reminder postcard, etc.) and deliver to the contractor for further preparation and mailing. Each set of mailings will be marked with an identification number indicating the address and survey version included in the link. The contractor shall ensure that the mailings are sent to the correct addresses as indicated by the unique identification number. The contractor shall also ensure that the electronic survey link is working properly. The target sample size shall be achieved in a reasonable period of time; the contractor shall include appropriate reminders to survey respondents in order to achieve the target response rate.

Additionally, the contractor shall administer the full survey to the sample drawn from the PBIP and provide the cleaned data file to the WACOR upon completion.

A total of up to 2,000 completed surveys by recruitment method for a total of up to 4,000 completed responses are anticipated. The precise number of completed responses needed will be determined through technical direction from the WACOR.

Deliverables and Schedule under Task 12:

- 12a. Obtain addresses for main sample within 1 week of receiving technical direction from the WACOR.
- 12b. Print labels and apply to survey materials, place materials in envelopes with EPA-paid postage and mail.
- 12c. Mail introduction letter within 1 week of receiving printed materials from EPA with subsequent mailings occurring according to schedule provided by the WACOR.
- 12d. Deliver dataset reporting responses from completed mail and electronic surveys within 6 weeks of first mailing.
- 12e. Ensure electronic survey is working properly for both survey recruitment methods according to schedule provided by the WACOR.

Task 13 – Clean and Code Data

The contractor shall clean the electronic data to ensure that any inconsistencies and or anomalies are addressed. When one half of the target number of completed surveys are collected, the contractor shall deliver cleaned and coded data for those surveys with a description of all variables, as well as a memo with a description of how the data were cleaned in a format determined by EPA. When the target number of completed surveys is collected, the contractor shall deliver clean and coded data for the complete sample.

Deliverables and Schedule under Task 13:

- 13a. Deliver clean and coded data to EPA within 1 week of receiving one-half of the target number of completed surveys.
- 13b. Deliver clean and coded data for the complete sample within 1 week of receiving target number of completed surveys.

Task 14 -- Non-response Follow Up

The contractor shall administer a non-response follow up survey (NRFS) to obtain information from a sample of respondents who do not complete the main, electronic survey. Under this task, the contractor shall determine the appropriate sample size for the non-response follow-up using the same recruitment modes utilized for the main survey. The contractor shall include appropriate cash incentives for non-respondents as agreed upon with the WACOR and OMB. The contractor shall administer a short questionnaire provided by EPA to both recruitment modes to ascertain important information on respondents who did not complete the main survey. Under this task, the contractor shall also enter the data from these responses into a data file and submit the information to EPA within 2 weeks of completing the non-response follow-up. For the costing purpose, the contractor should assume that 200 non-response follow ups will be administered by priority mail. Should NCEE select a different survey non-response study design or sample size, the estimated level of effort and cost for this task could understandably change.

Deliverables and Schedule under Task 14:

- 14a. Determine necessary sample size for NRFS.
- 14b. Administer short questionnaire to NRFS by mail including appropriate incentives.
- 14c. Create data file of all responses and provide to EPA within 2 weeks of completion.

Task 15 --Main Survey Report

During the administration of the full survey, the contractor shall track the success of the survey and nonresponse follow up and note any anomalies such as undeliverable mailings, item non-response, incorrectly answered questions, etc. and develop recommendations to address those anomalies in future surveys. The anomalies and proposed solutions shall be presented in a written report to the EPA.

Deliverables and Schedule under Task 15:

- 15a. Track success of main survey.
- 15b. Prepare report on survey administration with suggested changes for future efforts.

V. Schedule for Deliverables

Task	Deliverable	Form and Quantity	Schedule
Phase 1			
Task 1	1a) Work plan	Electronic Document	Within 15 calendar days of work assignment receipt
	1b) Kick-off meeting	Meeting/teleconference	Within 7 calendar days of work plan approval.
Task 2	2a) Draft list of potential expert panel participants	Electronic Document	Within 1 week of technical direction providing desired credentials
	2b) Confirmation of expert panel participants	Electronic Document	Within 2 weeks of comments from WACOR on 2a
Task 3	3a) Establish location and initial dates for six focus groups	Email	Within 1 week of receipt of technical direction from WACOR
	3b) Recruit participants for first focus group within	Electronic confirmation	Within 1 week of 3a)
	3c) arrange audio and/or video recordings for each group	Electronic confirmation	Within 1 week of 3a)
	3d) submit audio and video recordings and written transcripts to WACOR	Electronic documents/DVDs	Within 1 week of completion of each focus group
Task 4	4a) Submit electronic files of each version of survey instruments to be used in cognitive interviews	Electronic documents	Within 2 weeks of receiving technical direction from WACOR
	4b) Revise electronic versions of cognitive interview surveys	Electronic Document	Within 1 week of receiving comments from WACOR

	4c) Revise electronic files of survey instruments for use in pretest	Electronic documents	Within 1 week of receiving technical direction from WACOR
	4d) Revise electronic files of survey instruments for use in Full survey		Within 1 week of receiving technical direction from WACOR
Task 5	5a) Establish location and dates for 12 one-on-one interviews.	Email	Within 1 week of receiving technical direction from WACOR
	5b) Recruit participants for the first 12 one-on-one interviews	Electronic Document	First interview: within 1 week of completing task 5a
	5c) Establish location and dates for up to 8 more one-on-one interviews	Electronic Document	First interview: within 1 week of receiving technical direction from WACOR
	5d) Arrange audio and video recordings of each interview	NA	To coincide with 5a
	5e) Submit audio and video recordings of interviews and written transcripts of interviews	DVD, electronic document	Within 1 week of completing each set of interviews
Task 6	6a) Submit memo recommending sampling strategy	Electronic Document	Within 2 weeks of receiving technical direction from WACOR
Task 7	7a) Drafts of selected sections of ICR package	Electronic Document	Within 2 weeks of receiving technical direction from WACOR

	7b) Revised ICR section	Electronic Document	Within 1 week of receiving comments from WACOR (to be repeated up to 2 additional times)
Task 8	8 a) Obtain list of valid residential addresses from which to draw sample	Email confirmation	Within 1 week of receiving technical direction from WACOR
Task 9	9 a) Review of EPA thematic coding categories for qualitative content analysis	Electronic Document	Within 1 week of receiving technical direction from WACOR
	9 b) Review of coded text	Electronic Document	Within 3 weeks of receiving technical direction from WACOR
	9c) Submit coding plan for responses from short paper survey	Electronic Document	Within 3 weeks of receiving technical direction from WACOR
Task 10	10a) Obtain mailing addresses for pretest sample	Electronic Spreadsheet	Within 1 week of receiving technical direction from WACOR
	10b) Print labels and apply to survey materials, place in envelopes and mail	NA	According to schedule provided by WACOR
	10c) Administer pretest to PBIP	NA	According to schedule provided by WACOR
	10d) Deliver dataset for completed pretest surveys by recruitment method	Electronic database	Within 4 weeks of first mailing
Task 11	11a) Track success of pretest	NA	During pretest
	11b) Report on pretest with suggested changes for full implementation	Electronic Document	Within 1 week of conclusion of pretest

Task 12	12a) Obtain addresses for main sample	Electronic spreadsheet	Within 1 week of receiving technical direction from WACOR
	12b & c) Print labels and apply to survey materials, place in envelopes and mail	NA	First mailing shall occur within 1 week of receiving printed materials from EPA with subsequent mailings to follow schedule provided by WACOR
	12d) Data set reporting responses from completed surveys	Excel data file	Within 6 weeks of first mailing
	12e) Ensure electronic surveys are working properly		According to schedule provided by WACOR
Task 13	13 a) Deliver cleaned and coded data for half of the target number of completed surveys	Excel data file	Within 1 week of receiving half of the target number of completed surveys
	13 b) Deliver cleaned and coded data for the complete sample	Excel data file	Within 1 week of receiving the target number of completed surveys
Task 14	14a) Determine necessary sample size for NRFS	Electronic document	
	14b) Administer non-response follow up survey/short questionnaire	N/A	For NRFS: Within 2 weeks of receiving the follow up questionnaire from WACOR For short questionnaire: on rolling basis during survey administration as requests are received.
	14c) Deliver clean and coded data for the non-response study	Electronic database	Within 2 weeks of receiving the target number of completed surveys

Task 15	15a) Track success of main survey	NA	
	15b) report on survey administration with suggested changes for future efforts	Electronic Document	Within 2 weeks of receiving target number of surveys and non-response follow up

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-47				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-13-039			Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3			Title of Work Assignment/SF Site Name Estimating the Value of Health				
Contractor ABT ASSOCIATES INC.					Specify Section and paragraph of Contract SOW Task 1 and Task 3					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval					Period of Performance From 09/29/2016 To 07/31/2017					
Comments: Only Tasks 1 and 3 are being approved. The cost and hours are listed below. All other tasks are hereby disapproved. EPA plans to issue an amendment at a later date.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
SFO <input type="checkbox"/> (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee: \$0.00		LOE: 0						
09/11/2013 To 07/31/2017										
This Action:		\$52,604.00		177						
Total:		\$52,604.00		177						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated: 10/27/2016		Cost/Fee \$52,604.00		LOE: 177						
Cumulative Approved:		Cost/Fee \$52,604.00		LOE: 177						
Work Assignment Manager Name Nathalie Simon						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 202-566-2347				
						FAX Number:				
Project Officer Name Ahmar Siddiqui						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 202-566-1044				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number:				
						FAX Number:				
Contracting Official Name Tammy Adams						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 513-487-2030				
						FAX Number: 513-487-2545				

Digitally signed by TAMMY ADAMS
 DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff,
 cn=TAMMY ADAMS, dnQualifier=0000018417
 Date: 2016.11.29 15:00:26 -05'00'

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-48			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-13-039		Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3		Title of Work Assignment/SF Site Name Water Quality SP Study					
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW Section A.2.2, para 2, page 6					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval				Period of Performance From 08/25/2016 To 07/31/2017					
Comments:									
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>									
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.									
SFO <input type="checkbox"/> (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period:		Cost/Fee:		LOE:					
09/11/2013 To 07/31/2017				0					
This Action:				234					
Total:				234					
Work Plan / Cost Estimate Approvals									
Contractor WP Dated:				Cost/Fee		LOE:			
Cumulative Approved:				Cost/Fee		LOE:			
Work Assignment Manager Name Chris Moore <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-2348 FAX Number:			
Project Officer Name Ahmar Siddiqui <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1044 FAX Number:			
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:			
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div> TAMMY ADAMS Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.08.25 09:05:53 -04'00' _____ (Signature) </div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545			

WORK ASSIGNMENT

I. Title: Stated Preference Study of Water Quality Benefits

Contractor: Abt Associates

Contract No.: EP-C-13-039

II. Work Assignment Number: 3-48

III. Estimated Period of Performance: Date of Issuance through July 31, 2017

IV. Estimated Level of Effort: 234 hours

V. Key EPA Personnel:

Work Assignment Contracting Officers Representative (WACOR):

Chris Moore

Office of Policy 1809T

202-566-2348

202/566-1053 (fax)

VI. Background and Purpose:

The 1972 Clean Water Act (CWA) directs the Environmental Protection Agency (EPA or Agency) to develop national technology-based regulations for categories of industries that discharge pollutants directly to surface waters (effluent guidelines or ELGs) or that discharge pollutants indirectly through sewage treatment plants (pretreatment standards). The CWA also directs EPA to develop national technology-based regulations for new industrial facilities (new source performance standards).

Under Executive Orders 12866 and 13563, EPA is required to estimate the potential benefits and costs to society. As such, the purpose of this Work Assignment (WA) is to obtain contractor support for key activities needed to conduct a stated preference survey of the benefits of the improving surface water quality. Specifically, contractor support is needed for facilitating focus groups and cognitive interviews to aid in survey design and assist in preparing the Information Collection Request (ICR) to be submitted to Office of Management and Budget (OMB) for approval to conduct the subsequent survey.

Under this work assignment the contractor shall conduct all analyses requiring the collection and manipulation of data and models in accordance with the EPA approved quality assurance (QA) project plan. The QA project plan shall describe the procedures for assuring the quality of the primary and secondary economic data used for this work assignment.

VII. General Requirements of the Work Assignment and Schedule

Confidential Business Information: During the course of the work assignment, the contractor will not be accessing and evaluating CBI.

Budget Reporting: The contractor must also report to the EPA WACOR and Contract Level Contracting Officers Representative (CL-COR) when 75 percent of the approved work plan budget has been depleted.

Identification as Contracting Staff: To avoid the perception that contractor personnel are EPA employees, contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties and prior to the start of any meeting. Contractor personnel are prohibited from acting as the Agency's official representative. When speaking with the public, the contractor shall refer all interpretations of policy to the EPA WACOR.

Limitation of Contractor Activities: The contractor shall submit drafts of all deliverables to the EPA WACOR for review prior to submission of the final product. These drafts will clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources and data that support any conclusions and recommendations. The contractor shall incorporate all EPA WACOR comments into all final deliverables, unless otherwise agreed upon by the EPA WACOR. The contractor shall adhere to all applicable EPA management control procedures as implemented by the EPA Contracting Officer (CO), EPA CL-COR, and EPA WACOR.

Quick Response: Under this Performance Work Statement (PWS) the contractor may be required to provide information for use by EPA for quick responses and analyses of options, issues, and policy decisions. Quick responses are those which require completion in one to five working days.

Travel:

EPA does not anticipate the need for non-local travel by contractor employees and/or subcontractors to support the scope of this work assignment.

Deliverable Formatting: All memos, draft comments, summaries and responses, and chapters are to be provided in electronic form using Word and/or Excel/Access, ArcView, or, in special cases another software program agreed to by EPA. Memos are to be written in a manner which will make them easy to turn into draft chapters for the Final Report. For deliverables that are in Word or pdf versions of Word documents, that are intended to be shared with management or the public, the contractor shall use decimal align in all tables containing columns of numbers of varying digits, whether decimal places are reported or not. All final materials, e.g., memos, chapters, etc. are to be prepared only after receiving written technical direction from the EPA WACOR and will be formatted to be in compliance with the Section 508 Amendment to the Rehabilitation Act of 1973.

VIII. Performance Work Statement

The EPA WACOR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the

EPA WACOR's comments.

Task 1 - Prepare Work Plan

The contractor shall prepare a work plan within 15 calendar days of receipt of the work assignment. The work plan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task, and a staffing plan. The EPA WACOR, the CL-COR and the CO will review the work plan. However, only the CO can approve/disapprove, suggest revisions, or change the work plan. Official revisions will be given to the contractor by the CO. The contractor shall prepare a revised work plan incorporating the CO's comments, if required.

Deliverables and schedule under Task 1

1a. Work plan within 15 calendar days of receipt of work assignment.

Task 2 - Quality Assurance

The contractor shall conduct all analyses requiring the collection and manipulation of data and models in accordance with the EPA-approved programmatic quality assurance project plan (PQAPP) developed under work assignment 0-01 of this contract, supplemented as needed by procedures outlined in the QAPP previously developed for this work under contract EP-C-07-023. The PQAPP and QAPP describe procedures for assuring the quality of the primary and secondary environmental and economic data used for this work assignment. EPA will be conducting focus groups and interviews described below in Tasks 4 and 5. The contractor shall prepare transcripts of the focus groups and interviews and ensure their accuracy. The PQAPP describes procedures for data entry, data evaluation, and data quality verification that are sufficient to ensure the accuracy of text transcripts. The contractor shall revise this previously approved QAPP if needed to incorporate any changes to the analyses performed under this WA.

Task 3 - Prepare Standardized Naming Convention and Version Control Memorandum

The contractor shall adhere to the EPA WACOR approved standardized naming convention and version control (SNCVC) plan that was developed under the Construction and Development WA 0-01 of the contract EP-C-07-023 (WA0-01_T1_SNCVC_08.31.07_V1.pdf). The contractor shall use this standardized convention for all deliverables associated with this work assignment.

The EPA WACOR may request the contractor through written technical direction to amend the SNCVC memorandum at any point under this WA. The EPA WACOR will review the revised memorandum and then provide the contractor with written notification of approval or edits that need to be made. The contractor shall prepare the edited SNCVC memorandum incorporating the EPA WACOR's comments, if required. After receiving notification of approval the contractor shall use the revised SNCVC.

Deliverables and schedule under Task 3

3. If required, revised memorandum within 3 calendar days of receipt of comments from the EPA WACOR, at technical direction of EPA WACOR.

Task 4 - Arrange for 10 Focus Groups [Contract PWS Section A.2.2, para 2, page(s) 6]

The contractor shall arrange for the conduct of ten focus groups to examine stated preference valuation approaches for estimating the benefits of improving water quality in the Chesapeake Bay watershed. The ten focus groups shall be held in five separate locations, two focus groups in each location. The WACOR will provide technical direction as to the final locations.

The contractor shall recruit focus group participants based on criteria developed by EPA and provided by the WACOR. The contractor shall arrange for each focus group to be conducted in an appropriate facility with audio-visual support. Each focus group shall be audio- and video-recorded in digital format and delivered to EPA on electronically. The contractor shall also provide written transcripts for the focus groups. The contractor shall recruit 12-14 individuals for each focus group, with the goal of 9-10 participants in each group. Each focus group shall last approximately 2 hours and be conducted at a convenient time and in a convenient location.

The WACOR, in conjunction with the appropriate personnel in the National Center of Environmental Economics (NCEE) will secure information collection request (ICR) approval for the focus groups under an existing agreement with the Office of Management and Budget (OMB) for expedited review.

4a. Recruit participants for first focus group within 1 week of receiving final location information and criteria from EPA and for subsequent focus groups within 1 week of receiving criteria for those groups.

4b. Arrange audio- and/or video- recordings and written transcripts of each group within 1 week of receiving final location information from EPA and for subsequent focus groups within 1 week of receiving criteria for those groups.

4c. Submit audio- and video-recordings and written transcripts to WACOR within 1 week of completing each set of focus groups.

Task 5 - Arrange for 24 One-on-One Interviews [Contract PWS Section A.2.2, para 2, page(s) 6]

The contractor shall arrange for a series of up to 24 one-on-one interviews with potential respondents. Each interview shall last approximately 50-60 minutes. EPA will conduct these interviews to test drafts of the survey instrument and will provide all materials for the participants.

The contractor shall recruit participants according to criteria provided by the WACOR. The contractor shall provide an appropriate facility and location for these interviews. The contractor shall arrange for these interviews to be audio- and video-recorded in digital format and delivered to EPA on DVD. The contractor shall also provide written transcripts of the interviews. Six

interviews shall be held in each of the four locations identified by the WACOR.

The WACOR, in conjunction with the appropriate personnel in NCEE will secure ICR approval for the one-on-one interviews under an existing agreement with OMB for expedited review.

5a. Establish location and dates for first six one-on-one interviews within 1 week of receiving technical direction from WACOR.

5b. Recruit participants for the first set of interviews within 1 week of establishing location and dates for interviews, and recruit participants for the subsequent interviews according to technical direction from WACOR.

5c. Arrange audio- and video- recordings and written transcripts of each interview

5d. Submit audio- and/or video-recordings and written transcripts to WACOR within one week of completing each set of interviews.

Task 6 – Prepare ICR Package [Contract PWS Section A.2.2, para 2, page(s) 6]

The contractor shall prepare a draft of the ICR package to be submitted to OMB for approval to conduct the survey. The package shall follow EPA and OMB guidelines and include all relevant sections identified in the guidance. The contractor shall work closely with the WACOR to ensure that all necessary information is included in the package. The WACOR will provide technical assistance on relevant sections of the package, including providing relevant guidance documents. NCEE will submit the ICR package to EPA's Office of Environmental Information (OEI) for formal transmittal to OMB.

6a. Prepare a first draft of the ICR package within 2 weeks of completing task 4b.

6b. Revise ICR package within 1 week of receiving comments from WACOR.

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-48	
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:	
Contract Number EP-C-13-039		Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3		Title of Work Assignment/SF Site Name Stated Preference Study of Wat			
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW Section A.2.2, para 2, page 6			
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval				Period of Performance From 08/25/2016 To 07/31/2017			
Comments:							
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>							
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.							
SFO <input type="checkbox"/> (Max 2)							
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents) Site/Project (Max 8) Cost Org/Code
1							
2							
3							
4							
5							
Authorized Work Assignment Ceiling							
Contract Period:		Cost/Fee: \$0.00		LOE: 0			
09/11/2013 To 07/31/2017							
This Action:		\$85,328.00		234			
Total:		\$85,328.00		234			
Work Plan / Cost Estimate Approvals							
Contractor WP Dated: 09/12/2016		Cost/Fee \$85,328.00		LOE: 234			
Cumulative Approved:		Cost/Fee \$85,328.00		LOE: 234			
Work Assignment Manager Name Chris Moore <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-2348 FAX Number:	
Project Officer Name Ahmar Siddiqui <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1044 FAX Number:	
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div> (Signature) </div> <div> Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.09.15 13:12:37 -04'00' </div> </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545	

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-49				
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:				
Contract Number EP-C-13-039			Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3			Title of Work Assignment/SF Site Name Dose-Response Functions				
Contractor ABT ASSOCIATES INC.					Specify Section and paragraph of Contract SOW Section B.3 paragraph 1					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval					Period of Performance From 09/14/2016 To 07/31/2017					
Comments: The purpose is to initiate Work Assignment 3-49. The contractor shall submit an estimated workplan and an estimated budget in accordance with the contract. See attached performance work statement.										
<input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund										
SFO <input type="checkbox"/> Note: To report additional accounting and appropriations date use EPA Form 1900-69A. (Max 2)										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
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Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:		LOE:						
09/11/2013 To 07/31/2017				0						
This Action:				1,000						
Total:				1,000						
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Chris Dockins						Branch/Mail Code:				
_____ (Signature)						_____ (Date)				
Project Officer Name Ahmar Siddiqui						Phone Number: 202-566-2286				
_____ (Signature)						_____ (Date)				
Other Agency Official Name						FAX Number:				
_____ (Signature)						_____ (Date)				
Contracting Official Name Tammy Adams						Branch/Mail Code:				
_____ (Signature)						_____ (Date)				
Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.09.14 13:31:56 -04'00'						Phone Number: 513-487-2030				
						FAX Number: 513-487-2545				

WORK ASSIGNMENT

Title: DOSE-RESPONSE FUNCTIONS FOR BENEFITS ANALYSIS

Contractor: Abt Associates

Contract No.: EP-C-13-039

Work Assignment Number: 3-49

Estimated Period of Performance: Date of Issuance to July 31, 2017

Estimated Level of Effort: 1000 Total Hours

Key EPA Personnel:

Work Assignment Contracting Officer's Representative (WACOR):

Chris Dockins
OP/NCEE, 1809T
Phone: 202-566-2286
Fax: 202-566-2336

Background:

The Environmental Protection Agency (EPA) regulates a number of environmental contaminants that can damage neurological, cardiovascular, immunological, developmental, and other major organ systems. However, many EPA economic analyses have not been able to fully quantify and value the benefits of reductions in the risks of these outcome with the exception of cancer risks and a few health effects with particularly robust epidemiology. One important reason for this shortcoming is a lack of dose-response (or concentration-response) functions that link changes in exposures to changes in health endpoints that are amenable to economic valuation. In some cases, however, data and studies exist in the public health, epidemiologic, and other literature that can be used to estimate such functions. Using these studies and data to better quantify health risk changes would allow EPA offices, including the Office of Water (OW), to more fully characterize the benefits and outcomes of EPA programs, including in the context of benefit-cost analysis.

Therefore, this work assignment (WA) seeks technical assistance to obtain, and as necessary adapt, useful dose- or concentration-response estimates from the existing literature for contaminants that are priorities for the Agency, including lead.

In a previous work assignment for EPA (EP-W8-010, WA 4-11) the contractor has gathered and assessed available data and methods to value adult health benefits from reductions in lead related to cardiovascular mortality, all-cause mortality, and blood pressure. In a subsequent work assignment (EP-W-11-003, WA 4-62) the contractor estimated a concentration-response function for adult lead exposures and cardiovascular

mortality. And in a third work assignment (EP-W-11-003, WA 4-115) the contractor began initial scoping for estimates to support benefits analysis for additional health endpoints associated with lead. This earlier work will not be repeated under this work assignment.

Purpose and Objectives: The purpose of this performance work statement (PWS) is to identify, and as necessary adapt, dose-response functions to support benefits analysis for EPA regulations under the Safe Drinking Water Act (SDWA), the Clean Water Act (CWA), and other statutes. The work will focus on health endpoints for which there is evidence of adverse health effects and which can be sufficiently supported by the public health and economics literature. These include health endpoints associated with adult lead (Pb) exposure previously identified by the contractor under an earlier work assignment.

The work assignment focuses on the primary step in the risk-assessment-based approach for benefits assessment: quantifying the changes in health endpoints resulting from changes in environmental exposures. This involves developing dose- or concentration-response functions based on peer-reviewed public health literature that relates these changes in exposure to changes in adverse health outcomes.

A key issue involved in developing the concentration-response function(s) is the exposure metric and how it relates to exposures of concern (e.g., bone- or blood-concentrations as a measure of adult exposure to lead.). In some cases there may be a stronger relationship in the literature between some health effects and the exposure metric, something that should be considered in this work.

Tasks and Deliverables:

The WACOR will review all deliverables in draft form and provide revisions and/or comments to the contractor. The contractor shall prepare the final deliverables incorporating the WACOR's comments. The contractor shall provide the WACOR with electronic copies of all deliverables and cited source/reference material.

The contractor shall only accept technical direction from the WACOR. Technical direction for this work assignment consists of verbal and written feedback on deliverables, requests for follow-up information or revisions of deliverables, and responses to questions from the contractor regarding specific sources of information to collect and review. Issuance of WACOR verbal technical direction will be provided in email and/or memos within 5 days.

The WACOR will request the contractor to engage in technical communication with other EPA staff if needed for the performance of this work assignment.

Contractor personnel shall at all times identify themselves as contractor employees and shall not present themselves as EPA employees. Furthermore, they shall not represent the views of the U.S. Government, EPA, or its employees. In addition, the contractor shall not engage in inherently governmental activities, including but not limited to actual determination of EPA policy and preparation of documents on EPA letterhead.

All memos, draft comments, summaries and responses, and chapters are to be provided in electronic form using Word and/or Excel/Access, ArcView, or, in special cases another software program agreed to by EPA. Memos are to be written in a manner which will make them easy to turn into draft chapters for the Final Report. For deliverables that are in Word or pdf versions of Word documents, that are intended to be shared with management or the public, the contractor shall use decimal align in all tables containing columns of numbers of varying digits, whether decimal places are reported or not. All final materials, e.g., memos, chapters, etc. are to be prepared only after receiving written technical direction from the EPA WACOR and will be formatted to be in compliance with the Section 508 Amendment to the Rehabilitation Act of 1973.

QUALITY ASSURANCE (QA) REQUIREMENTS

The Contractor shall submit with their technical proposal a written Quality Assurance Project Plan (QAPP), as this project generates environmental data using models.

TASKS

Task 1 - Prepare Work Plan

The contractor shall prepare a workplan within 15 calendar days of receipt of a work assignment signed by the Contracting Officer (CO). The work plan shall outline, describe and include the technical approach, resources, timeline and due dates for deliverables, a detailed cost estimate by task and a staffing plan. The WACOR, the Contract-Level Contracting Officer's Representative (CL-COR), and the CO will review the work plan. However, only the CO can approve/disapprove, suggest revisions, or change the work plan. Official revisions will be given to the contractor by the CO. The contractor shall prepare a revised workplan incorporating the CO's comments, if required.

Deliverables under Task 1

1. Work plan **within 15 days of WA receipt**

Task 2 –Identify, and as necessary adapt, dose-response functions for children's exposure to lead [*Contract PWS Section B.3, "Specific Information on Pollutants of Concern," page 10 of 24*]

The contractor shall identify, based on reviews of the literature, one or more dose-response functions suitable for estimating changes in health endpoints for benefits analysis of reduced childhood exposure to lead. To the extent possible the dose-response functions will be based on human data rather than animal bioassays. The contractor shall determine an appropriate strategy for evaluating the feasibility of these dose-response functions for benefits analysis, including any necessary adaptations of the functions. The contractor shall create a report documenting any search strategies, the evaluation of the literature, selected dose-response functions, and how these are applied for benefits analysis, including how to aggregate the results with other health effects benefits (e.g.,

intelligence quotient (IQ) changes) without double-counting. The report shall be suitable for external peer review.

Deliverables under Task 2

2a. Draft child dose-response functions report within 12 weeks of work assignment initiation

2b. Revised child dose-response functions reports, within 4 weeks of receiving comments from WACOR.

Task 3 –Identify, and as necessary adapt, dose-response functions for cardiovascular effects of adult exposure to lead and other health endpoints [Contract PWS Section B.3, “Specific Information on Pollutants of Concern,” page 10 of 24]

The contractor shall identify, based on reviews of the literature, one or more dose-response functions suitable for estimating changes in health endpoints for benefits analysis of reduced adult exposure to lead, including cardiovascular outcomes. To the extent possible the dose-response functions will be based on human data rather than animal bioassays. The contractor shall determine an appropriate strategy for evaluating the feasibility of these dose-response functions for benefits analysis, including any necessary adaptations of the functions. The contractor shall create a report documenting any search strategies, the evaluation of the literature, selected dose-response functions, and how these are applied for benefits analysis, including how to aggregate the results with other health effects benefits (e.g., mortality risk changes) without double-counting. The report shall be suitable for external peer review.

Deliverables under Task 3


3a. Draft adult dose-response functions report within 12 weeks of work assignment initiation

3b. Revised adult dose-response functions reports, within 4 weeks of receiving comments from WACOR.

SUMMARY OF DELIVERABLES AND DATES:

Task	Deliverable	Delivery Schedule
1	Work plan	15 calendar days after effective date of work assignment
2a	Draft Child Dose-Response Functions Report	12 weeks after effective date of work assignment
2b	Revised Child Dose-Response Functions Report	4 weeks after receiving comments from WACOR
3a	Draft Adult Dose-Response Functions Report	12 weeks after effective date of work assignment

3b	Revised Adult Dose-Response Functions Report	4 weeks after receiving comments from WACOR
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EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-49			
						<input type="checkbox"/> Other <input type="checkbox"/> Amendment Number:			
Contract Number EP-C-13-039			Contract Period 09/11/2013 To 07/31/2017 Base Option Period Number 3			Title of Work Assignment/SF Site Name Dose-Response Functions for Be			
Contractor ABT ASSOCIATES INC.				Specify Section and paragraph of Contract SOW Section B.3 Specific Information on Pollutants of					
Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input checked="" type="checkbox"/> Work Plan Approval				Period of Performance From 09/14/2016 To 07/31/2017					
Comments:									
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund </div>									
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.									
SFO <input type="checkbox"/> (Max 2)									
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars) (Cents)	Site/Project (Max 8)	Cost Org/Code
1									
2									
3									
4									
5									
Authorized Work Assignment Ceiling									
Contract Period: Cost/Fee: \$0.00 LOE: 0 09/11/2013 To 07/31/2017									
This Action: \$111,197.00 1,000									
Total: \$111,197.00 1,000									
Work Plan / Cost Estimate Approvals									
Contractor WP Dated: 09/30/2016 Cost/Fee \$111,197.00 LOE: 1,000									
Cumulative Approved: Cost/Fee \$111,197.00 LOE: 1,000									
Work Assignment Manager Name Chris Dockins <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-2286 FAX Number:			
Project Officer Name Ahmar Siddiqui <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 202-566-1044 FAX Number:			
Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: FAX Number:			
Contracting Official Name Tammy Adams <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> <small>Digitally signed by TAMMY ADAMS DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=TAMMY ADAMS, dnQualifier=0000018417 Date: 2016.10.13 13:10:43 -04'00'</small> </div> </div> <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div>						Branch/Mail Code: Phone Number: 513-487-2030 FAX Number: 513-487-2545			

EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment						Work Assignment Number 3-49				
						<input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001				
Contract Number EP-C-13-039			Contract Period 09/11/2013 To 07/31/2018 Base Option Period Number 3			Title of Work Assignment/SF Site Name Dose-Response Functions				
Contractor ABT ASSOCIATES INC.						Specify Section and paragraph of Contract SOW Section B.3 paragraph 1				
Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval						Period of Performance From 09/14/2016 To 07/31/2017				
Comments: This amendment is for a no-cost increase in LOE of 125 hours. The contractor was able to complete work with a more efficient mix of labor and can perform additional in-scope work.										
<input type="checkbox"/> Superfund						Accounting and Appropriations Data				<input checked="" type="checkbox"/> Non-Superfund
SFO <input type="checkbox"/> (Max 2) Note: To report additional accounting and appropriations data use EPA Form 1900-69A.										
Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										
Authorized Work Assignment Ceiling										
Contract Period:		Cost/Fee:				LOE: 1,000				
09/11/2013 To 07/31/2018										
This Action:						125				
Total:						1,125				
Work Plan / Cost Estimate Approvals										
Contractor WP Dated:				Cost/Fee		LOE:				
Cumulative Approved:				Cost/Fee		LOE:				
Work Assignment Manager Name Chris Dockins						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 202-566-2286				
						FAX Number:				
Project Officer Name Ahmar Siddiqui						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 202-566-1044				
						FAX Number:				
Other Agency Official Name						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number:				
						FAX Number:				
Contracting Official Name Noelle Mills						Branch/Mail Code:				
<div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div>						Phone Number: 513-487-2171				
						FAX Number:				

Digitally signed by NOELLE MILLS
 DN: cn=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=NOELLE MILLS, dnQualifier=000044796
 Date: 2017.09.24 08:59:48 -0500